55-1740-201-13

TM 55-1740-201-13

TECHNICAL MANUAL

OPERATOR'S ORGANIZATIONAL, AND DS MAINTENANCE MANUAL

TRANSPORTER, AIRMOBILE MODEL 4003

PART NO. 7400017-502 AND PART NO. 7400050-501 FSN 1740-902-3132 AND FSN 1740-901-1870

HEADQUARTERS, DEPARTMENT OF THE ARMY
APRIL 1971

D 101.11:

NOTE

This manual has not been prepared according to military specifications, but despite this limitation of its contents, the publication does provide the essential data needed to operate and to maintain the equipment.

TECHNICAL MANUAL)
)
No. 55-1740-201-13)

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C. 7 April 1971

OPERATOR'S, ORGANIZATIONAL, AND DS MAINTENANCE MANUAL FOR

TRANSPORTER, AIRMOBILE MODEL 4003
PART NO. 7400017-502 AND PART NO. 7400050-501
FSN 1740-902-3132 AND FSN 1740-901-1870

SECTION I. Introduction and General Description

1.1	Scope	4
1.2	Equipment Records	4
1.2.1	Purpose of Equipment	4
1.3	Description of Equipment	4
1.3.1	Front Trailer Dolly	4
1.3.2	Drawbar Assembly	5
1.3.3	Rear Trailer Dolly	5
1.3.4	Brake System (Part No. 7400017-502)	5
1.3.5	High-Pressure Hydraulic System	5
1.3.6	Lighting System (Part No. 7400017-502)	5
1.3.7	Brake System (Part No. 7400050-501)	6

II. Table of Specifications

2.1	General	7
2.2	Front Axle	7
2.3	Wheel Alignment	7
2.4	Wheels and Tires	7
2.5	Brakes	8
2.6	High Pressure Hydraulic System	8
2.7	Electrical System (Part No. 7400017-502)	8

III. Preparation for Use

3.1	Uncrating	9
3.2	High Pressure Hydraulic System	9
3.3	Brake System (Part No. 7400017-502)	9
3.4	Drawbar Installation	9
3.5	Service Brake System (Part No. 7400050-501)	9

SECTION IV. Operation

4.1	General	11
4.2	Principles of Operation	11
4.2.1	Service Brake System (Part No. 7400017-502)	11
4.2.2	Service Brake System (Part No. 7400050-501)	11
4.2.3	Parking Brake	12
4.2.4	High Pressure Hydraulic Systems	12
4.3	Operating Instructions	12
4.3.1	Raising Mobilizer	12
4.3.2	Lowering Mobilizer	13
4.3.3	Uncoupling Front and Rear Dollies	13
4.3.4	Coupling Front and Rear Dollies	13
4.3.5	Attachment to Shelter	13
4.3.6	Detachment from Shelter	14
4.3.7	Attachment to Prime Mover	14
4.3.8	Safety Precautions	14
4.3.9	Backing-Up Procedure	15

V. Service, Inspection Maintenance, and Lubrication

5.1	Special Service Tools	16
5.2	Periodic Service Inspection	16
5.3	Maintenance	16
5.3.1	General	16
5.3.2	Wheels and Tires	17
5.3.3	Wheel Bearings	17
5.3.4	Brake Assemblies (Part No. 7400017-502)	18
5.3.5	Wheel Alignment	18
5.3.6	Hydraulic Pump	18
5.4	Lubrication	19
5.5	Brake Assemblies (Part No. 7400050-501)	19

VI. Illustrated Parts Breakdown for Part No. 7400017-502

6.1	Assembly, Mobilizer	22
6.2	Axles and Attaching Bracket Assembly	24
6.3	Axle Assembly, Front	26
6.4	Axle Subassembly, Front	30
6.5	Front Wheel and Brake Assembly	32
6.6	Arm, Steering, Assembly	34
6.7	Suspension Assembly, Front	36
6.8	Axle Assembly, Rear	38
6.9	Axle Subassembly, Rear	42

SECTION VI. Illustrated Parts Breakdown for Part No. 7400017-502 - Continued

6.10	Wheel and Brake Assembly, Rear	44
6.11	Suspension Assembly, Rear	46
6.12	Adapter Assembly	48
6.13	Tie Cable Assembly	50
6.14	Harness Assembly, Bar	52
6.15	Harness Assembly, Electrical, Intervehicular	54
6.16	Pump, Hand, Hydraulic	56
6.17	Hose and Coupling Assembly, Air Brake Line	58
6.18	Service Brake System, Air Hydraulic	60

VII. Illustrated Parts Breakdown for Part No. 7400050-501

7.1	Assembly, Mobilizer	63
7.2	Axles and Attaching Bracket Assembly	65
7.3	Axle Assembly, Front	66
7.4	Axle Subassembly, Front	70
7.5	Front Wheel and Brake Assembly	72
7.6	Arm, Steering, Assembly	74
7.7	Suspension Assembly, Front	76
7.8	Towbar Assembly	77.1
7.9	Axle Assembly, Rear	79
7.10	Axle Subassembly, Rear	82
7.11	Wheel Assembly, Rear	84
7.12	Suspension Assembly, Rear	86
7.13	Adapter Assembly	88
7.14	Tie Cable Assembly	90
7.15	Pump, Hand Hydraulic	92
7.16	Service Brake System	94
7.17	Surge Brake Actuator	96
7.18	Hydraulic Cylinder, Single Acting	98

Section I
Introduction and General Description

1.1 Scope

a. This manual covers operation and maintenance instructions for the Mobilizer Model 4003, including Part No.'s 7400050-501 and 7400017-502.

b. Appendix A contains the maintenance allocation chart. The chart assigns the maintenance functions and repair operations to be performed by the lowest appropriate maintenance level.

c. Report of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to DA Publications) and forwarded direct to: Commanding General, US Army Aviation Systems Command, ATTN: AMSAV-R-M, PO Box 209, St. Louis, Missouri 63166.

1.2 Equipment Records

The Army equipment record system and procedures established in TM 38-750 apply to this equipment. Applicable forms as required by TM 38-750 shall be used.

1.2.1 Purpose of the Equipment

The mobilizer is used to transport an electronic equipment shelter used to house a working system, and has a maximum payload capacity of 4000 pounds. It is designed for highway operation. A shelter adapter kit is used to provide attachment points on the shelter for mounting the mobilizer.

1.3 Description of Equipment

The mobilizer is designed to lift and transport an equipment shelter and its associated equipment and can be attached to the shelter and made ready for use by one man in less than twenty minutes. The mobilizer may be towed with front and rear dollies coupled to each other when not attached to a shelter. The front dolly is steerable.

1.3.1 Front Trailer Dolly

The front dolly is the means of mechanical connection between the mobilizer and the prime mover. The dolly assembly consists of an axle assembly, wheels, brake assemblies, steering linkage, a drawbar assembly, an adapter, and a high pressure hydraulic system. The axle assembly is the main supporting structure of the dolly and has the suspension assembly, steering linkage, drawbar assembly, hydraulic cylinders, struts, adapter, high pressure hydraulic system and brake system components attached to it. Each wheel is independently suspended, measures 30 inches in diameter, has two roller bearings and is mounted with a 700x16 6-ply tube type tire. Part No. 7400050-501 model is equipped with automotive type brakes on the front spindles only. Part No. 7400017-502 model has pneumatically actuated, hydraulically operated service brakes on each spindle mounted inboard of the wheel. A parking brake assembly is incorporated in the rear axle brakes. Both models have an adapter, located on the aft portion of the dolly and provides a point of attachment for the shelter and the rear dolly when the shelter is not in use. The high pressure

hydraulic system is provided to raise or lower the dolly, and is completely independent of the hydraulic system on the other dolly. A lockout feature is also provided to prevent front wheel cramping during the positioning operation. The weight of the towbar depresses a pin in the steering arm, which engages in a socket on the axle. This lockout device is only actuated when the front dolly is in the retracted position and the towbar is perpendicular to the front axle.

1.3.2 Drawbar Assembly

The drawbar assembly is designed for use with a prime mover and, when deflected sideways, operates the steering linkage to move the wheels to a maximum angle of 40 degrees either side of neutral.

1.3.3 Rear Trailer Dolly

The rear dolly consists of a axle assembly, wheels, brake assemblies, an adapter and a high pressure hydraulic system. It is similar to the front dolly described in paragraph 1.3.1 except it is not steerable, and includes two stop and tail lamp assemblies and a blackout stop lamp assembly. A harness assembly interconnects these lamp assemblies with the prime mover.

1.3.4 Brake System. (Part No. 7400017-502)

Hydraulically operated service brakes are provided on all four wheels. These brakes are pneumatically operated from the towing vehicle. The brakes are equipped to automatically adjust themselves when the vehicle is backed-up. In addition, a mechanically actuated parking brake is incorporated in the wheels of the rear dolly.

1.3.5 High-Pressure Hydraulic System

The high-pressure hydraulic systems are the means for raising or lowering the mobilizer. Each consists of a hydraulic pump, control valve, check valve, and necessary tubing unions, and connectors. The hydraulic pump is a 6000 PSIG, hand-operated pump, with an integral hydraulic reservoir. Pressure in the system is releasedby the control valve and may be utilized to control the rate of flow of the return fluid.

1.3.6 Lighting System (Part No. 7400017-502)

The lighting system operates on 24 volt direct current which is supplied to the lamp assemblies mounted on the rear trailer dolly. These lamps operate in conjunction with the corresponding lamps on the prime mover. A twelve (12) pin military type connector mounted on the rear trailer dolly provides the connection point for the intervehicular cable provided. The intervehicular cable has mating connectors for the one located on the Prime Mover and on the rear trailer dolly.

.3.7 Brake System (Part No. 7400050-501)

The service brake is an inertia-actuated (surge brake) system, using hydraulic fluid conforming to Federal Specification VV-B-680. The service brake system consists essentially of three major units, the hitch assembly which includes the lunnette eye, spring loaded cylindrical sliding section and an automotive hydraulic brake master cylinder. The unit also includes provisions for the relief of braking pressure during backup of the vehicle. A cable operated emergency breakaway feature is incorporated into the inertia-actuator. In event of breakaway from the towing vehicle, the cable attached to the towing vehicle operates a lever which locks the actuator in the "on" position and maintains pressure on the system. In addition, the front dolly is equipped with a parking brake. The parking brake is activated through mechanical linkage and mechanically locks the brakes on the front dolly assembly. There are no brakes on the rear dolly.

Section II
Table of Specifications

2.1	General	
	Type of Vehicle	Mobilizer
	Gross Vehicle Weight	1136 lbs.
	Payload for Type III Mobility:	
	Highway Operations	4000 lbs.
	Off Road Operations	3000 lbs.
	Speed Limitations	
	Paved Road 50-60 MPH, Graded Gravel 20-25 MPH, Cross Country 15-20 MPH	
	Overall Length	
	Raised Position	98 inches
	Lowered Position	95 inches
	Overall Width	69 inches
	Overall Height	
	Raised Position	46 inches
	Lowered Position	30 inches
	Ground Clearance under Front Axle	
	Empty	16 inches
	With Maximum Load	14 1/2 inches
	Ground Clearance under Rear Axle	
	Empty	16 inches
	With Maximum Load	14 1/2 inches
	Tread inside Tires	53 3/4 inches
	Tread outside Tires	69 inches
	Turning Radius	
	Empty	12 ft. R.
	With 12-Ft. Shelter	29 ft. R.
2.2	Front Axle	
	Turning Radius Angle	40 degrees
2.3	Wheel Alignment	
	Camber (front & rear)	1° +1° -0°
	Toe In	
	Front	1/4 inch
2.4	Wheels & Tires	
	(a) Wheels	
	Make	OPN 7387807
	Size	7:00 x 16
	(b) Wheel Bearings	
	Inner Cone	Timken 18590
	Inner Cup	Timken 18520
	Outer Cone	Timken 18590
	Outer Cup	Timken 18520
	(c) Tires	
	Type	truck and bus
	Size	7:00 x 6 ply
	Part No.	MS-35388-9

	(d) Tube	truck and bus
	Type	7:00 x 16
	Size	MS-35392-8
	Part No.	
	(e) Air Pressure	45 PSI
	Hard surface road	30 PSI
	Operation	
2.5	Brakes	
	(a) Service	Bendix
	Manufacturer	Internal Expanding
	Type	
	Part No.	318458
	Left Hand Side (front and rear)	318457
	Right Hand Side (front and rear)	Air Hydraulic
	Type of Service	2 per brake
	Shoes	
	(b) Hand, mechanical, rear	Orscheln
	Manufacturer	6100-C26-1327
	Part No.	
2.6	High Pressure Hydraulic System	
	Operating Pressure	6000 PSIG
	Fluid-Capacity	120 fluid oz.
	Fluid Specification	MIL-H-5606
	Type of System	Closed Loop
	Type of Pump	Constant replacement
2.7	Electrical System (Part No. 7400017-502 only)	
	Voltage	24 VDC
	Lamps	
	Tail Light 3cp	MS-15570-1251
	Stop Light 32cp	MS-35478-1683
	B/O Stop Light 3cp	ORD 190877
	B/O Tail Light 3cp	MS-15570-1251

Section III
Preparation for Use

3.1 Uncrating

Use normal precautions when uncrating to prevent damage to equipment. Remove all packing materials and disassembled Mobilizer components.

3.2 High Pressure Hydraulic System

The high pressure hydraulic system is drained of hydraulic fluid, and a preservative fluid pumped through the system prior to shipment. Therefore, the system must be flushed before being put into operation. To flush the hydraulic system, proceed as follows:

(a) Fill hydraulic pump reservoir with hydraulic fluid Military Specification MIL-H-5606.
(b) Disconnect return line from hydraulic pump.
(c) Pump hydraulic fluid through system in both the raised and lowered positions. Use a suitable container to collect return fluid.
(d) Connect return line to pump.
(e) Service system as outlined in Section V.

3.3 Brake System (Part No. 7400017-502)

Remove filler plug from each of the two master brake cylinders and check level of brake fluid. If level of brake fluid is more than 1/2 inch below top of reservoir, add sufficient brake fluid to bring the level to this point. To insure brakes are free proceed as follows:

(a) Release parking brakes on dolly.
(b) Move Mobilizer Assembly forward.
(c) Move Mobilizer Assembly to the rear.
(d) Observe ease of movement, in the event vehicle wheels do not turn freely remove wheels and clean drum surfaces.
(e) Readjust brakes and repeat b and c.
(f) Service system as outlined in Section V.

3.4 Drawbar Installation

Position drawbar casting over steering arm castings, insert drawbar pin. Next insert locking pin to secure towbar pin in place. For Part No. 7400050-501, attach surge brake hydraulic line to connector on front axle assembly and service brake system in accordance with paragraph 3.5.

5 Service Brake System (Part No. 7400050-501)

The service brake system must be flushed before being put into operation. To flush the service brake system, proceed as follows:

(a) Place one end of a length of rubber tubing over bleeder port and submerge the free end in a container partially filled with hydraulic brake fluid.

(b) While surge brake actuator on towbar is being actuated, open bleeder port to allow fluid flow. When air bubbles cease and hydraulic fluid stream is a clean solid mass, close bleeder port. Remove rubber tube.

(c) Repeat at each wheel, replenishing hydraulic fluid in brake master cylinder as necessary.

(d) Repeat procedure until only pure hydraulic fluid remains in system.

(e) Brake shoes are self-adjusting but can be adjusted by hand (See 5.3.4).

(f) Fill the actuator master cylinder to the mark and replace filler cap.

Section IV
Operation

4.1 General

This section contains principles of operation and operating instructions for the Mobilizer. When operating the Mobilizer, the operator must be completely familiar with the equipment, and all ground safety precautions must be strictly adhered to.

4.2 Principles of Operation

4.2.1 Service Brake System(Part No. 7400017-502)

When air pressure is applied from the prime mover, it enters the system and passes through an air cleaner and a tee. The outlets of the tee are connected to the air chambers located on each dolly. When pressure reaches the chambers, the master cylinders are actuated, providing hydraulic pressure in the master cylinders and operating the brakes through the interconnecting lines.

When air pressure is reduced, the pressure in the air cylinders decreases and the master cylinders return to their original positions. The hydraulic pressure in the system is thereby decreased and the brakes are released.

When the Mobilizer is stationary and the brake lever assembly is engaged, tension is applied to the two brake cables and the rear brakes are mechanically actuated. When the handle assembly is disengaged the tension on the brake cables is relaxed and the brakes are released.

4.2.2 Service Brake System (Part No. 7400050-501)

The hydraulic surge brake actuator automatically applies the Mobilizer's hydraulic brakes in synchronization with the braking action of the towing vehicle; . Because the forward surge of the Mobilizer and its its payload activates the Mobilizer brakes, the braking action is in exact proportion to the deceleration of the towing vehicle. The Mobilizer however, is self-contained, with no inconvenient and limiting connection to the towing vehicle.

The telescoping towbar is in line with the master cylinder piston and is connected to the piston by means of a slideable mounted push rod.

Internal operation of the master sylinder is similar to that of an automotive hydraulic master cylinder, but the surge brake actuator unit has a separate fluid accumulator chamber that absorbs impact loads and permits backing.

A pre-load coil spring serves as a hold-off to prevent premature or intermittent, and undesirable, brake snubs which could be caused, for example, by uneven road survaces or pitching of the trailer.

The working stroke of the towbar is approximately two inches. Beyond this point, the master cylinder piston by-passes a relief slot, allowing the brakes to release. This arrangement permits free backing of the vehicles equipped with brakes that are equally effective in either direction. A cable operated emergency breakaway feature is incorporated into the inertia activator. The cable is attached to the towing vehicle and, in event of breakaway from towing vehicle, pulls the cam-lever forward forcing the push rod into operating position and maintaining pressure on the brake system to stop the Mobilizer.

4.2.3 Parking Brake

When the brake lever assembly is engaged, tension is applied to the two brake cables and the front brakes are mechanically actuated. When the handle assembly is disengaged, the tension on the brake cables is relaxed and the brakes are released.

4.2.4 High Pressure Hydraulic Systems

When the hydraulic pump is operated with the control valve in the "PUMP" position, fluid flows from the pump through the control valve to both hydraulic cylinders, thereby extending the cylinders. This in turn lowers the wheels to the ground and raises the shelter to which the mobilizer is attached to.

When the control valve is placed in the "RELEASE" position, fluid flows from the hydraulic cylinders through the control valve back into the pump reservoir, permitting the wheels to retract and lower the shelter to the ground. The operating speed of the system may be controlled by the control valve; which can be used to adjust the rate of fluid flow, which determines the speed at which the Mobilizer will allow its payload to descend to the ground.

4.3 Operating Instructions

4.3.1 Position hydraulic pump handle in pump. Place control valve in "PUMP" position and pump each dolly to raised position. Lock strut in place by tightening wing nut. Control valve should normally be left in "PUMP" position to assist in carrying the shelter load.

4.3.2 Lowering Mobilizer

Before lowering Mobilizer, place control valve in "PUMP" position and pump up to relieve tension on struts. Release struts by loosening wing nut. With no load on transporter, place control valve in maximum "RELEASE" position, with payload attached to Mobilizer move control valve slowly to "RELEASE" position which allows release of pressure. Control speed of operation by adjusting control valve.

WARNING

With control valve in fully opened position heavy loads will be dropped abruptly, causing possible damage to equipment and injury to personnel.

4.3.3 Uncoupling Front and Rear Dollies

To uncouple front and rear dollies proceed as follows:

(a) Remove flexible air line **(Part No. 7400017-502 only)**
(b) Remove pump handle from storage position and insert in pump lever.
(c) Lower mobilizer (refer to para 4.3.2)
(d) Remove Fore and Aft lock pins.
(e) Dollies may now be moved separately.
(f) Store pump handle on dolly in position provided.
(g) Store flexible air hose. **(Part No. 7400017-502 only)**

4.3.4 Coupling Front & Rear Dollies

To couple front and rear trailer dollies, proceed as follows:

(a) Position front and rear trailer dollies back to back and set parking brakes on front trailer dolly.
(b) Place forks of rear dolly on top of forks of front dolly.
(c) Align lock in pin holes, insert lock pin in four (4) places.

CAUTION

Operator will insure that both Fore and Aft locking pins are installed and secure. Non-Compliance may result in serious damage to equipment.

(d) Raise Mobilizer (refer to para 4.3.1)
(e) Store pump handle on dolly assembly.
(f) Attach flexible air hose.**(Part No. 7400017-502)**.

4.3.5 Attachment to Shelter

Position rear trailer dolly at door end of the shelter and front trailer dolly at other end of shelter, then proceed as follows:

(a) Align spades on mobilizer with shelter brackets.
(b) Insert mobilizer spades into sockets, align locking pin holes.
(c) Insert locking pins through aligned holes. Repeat this procedure at all four attachment points on the shelter.
(d) Pump each dolly to raised position.
(e) Lock strut in position.
(f) Install tie cable assemblies, connecting front & rear dollies, tighten nuts using pump handle.

4.3.6 Detachment from Shelter

To detach shelter, proceed as follows:

(a) Set parking brake on rear dolly.
(b) Remove tie cable assemblies.
(c) Lower mobilizer (refer to para 4.3.2)
(d) Detacn locking pin assembly from mounting points.
(e) Release parking brake.
(f) Push front and rear dollies down and away from shelter to separate.

4.3.7 Attachment to Prime Mover

To attach mobilizer to prime mover, proceed as follows:

(a) Attach drawbar to prime mover by placing lunette eye of mobilizer in pintle hook of prime mover.
(b) Lock pintle hook.
(c) Connect electrical cable assembly from rear dolly to prime mover.(Part No. 7400017-502 only)
(d) Connect intervehicular air line between front and rear dollies.(Part No. 7400017-502 only)
(e) Connect air line from front dolly to prime mover.
(f) Make certain that air line is connected to service line, not to emergency line of prime mover.(Part No. 7400017-502 only)
(g) Check brakes for proper operation before towing mobilizer.

NOTE

Direct excess cable over top of payload, allow same amount of slack in line at both front and rear.

(h) Check brakes are released before towing mobilizer.

4.3.8 Safety Precautions

The following safety precautions must be observed to avoid accidents and injury to personnel:

(a) Set parking brake whenever mobilizer is not being towed. However, if mobilizer is being parked for a prolonged period, chock wheels securely to prevent movement and release hand brake. This will prevent brake freezing due to moisture and corrosion within

the brake drum.

(b) Make certain that all personnel and equipment are clear of the mobilizer during the lowering and raising operation.

(c) Store pump handle in proper place when not in use.

(d) When parking mobilizer, allow sufficient free space for ease of operation.

(e) Inspect for proper attachment and interconnection of the mobilizer and prime mover before towing.

4.3.9 **Backing-up Procedure (Part No. 7400050-501 only)**

With towbar of Mobilizer approximately perpendicular to front axle, detach safety chains from towing vehicle and double back with hook end and connect to pull rings on the outboard ends of the axle. This triangular configuration of towbar and chains should minimize side movement during backing. Sharp turns should be avoided. It is recommended that the driver be given assistance in watching the couple during the back-up procedure since maximum cramp angle of the towbar is 40°. No manual adjustment of the surbe brake is necessary for backing up.

Section V
Service, Inspection, Maintenance Lubrication

5.1 Special Service Tools

No special service tools are required.

5.2 Periodic Service Inspection

Figure 1 contains all necessary inspection instructions and points to be checked. Inspection intervals are provided in the columns opposite the inspection instructions.

5.3 Maintenance

5.3.1 General

The following paragraphs provide servicing and maintenance instructions. Only operations that can be performed with hand tools which are available to the using organization and which do not require the facilities of overhaul organizations are considered.

INSPECTION INSTRUCTIONS	WEEKLY	6 MONTHS AND/OR 5000 MILES
Wheels and Tires		
Inspect Tires	x	
Check Tire Pressure	x	
Remove Wheel Bearings, Clean, Inspect and Pack		x
Check and Tighten Wheel Nuts	x	
Steering System		
Check Wheel Alignment for Correct Toe In		x
Check for Bent or Loose Tie Rods	x	
Service Brakes		
Check brake adjustment		x
Check master cylinder for leaks		x
Check hydraulic fluid level	x	
Test service brakes, adjust if necessary	x	
Parking Brakes		
Test parking brake	x	
Adjust parking brake	x	
Wiring (Part No. 7400017-502 only)		
Inspect electrical wiring and cable for chafing and cracking	x	
Check connectors for fit with mating parts	x	
Lights (Part No. 7400017-502 only)		
Check operation of lights	x	

Figure 1 - Periodic Service Inspection Chart (Sht 1 of 1)

INSPECTION INSTRUCTIONS (cont.)	WEEKLY	6 MONTHS AND/OR 5000 MILES
Suspension System		
Check security of King Pin		x
Drawbar Assembly		
Check lunette eye for cracks and signs of fatigue		x
Check drawbar pins	x	
Protective Finish		
Check all surfaces for chipped paint	x	

Figure 1-Periodic Service Inspection Chart
(Sheet 2 of 2)

5.3.2 Wheel and Tires

Remove a wheel for a tire change as follows:

(a) Place hydraulic jack under axle and pump with control valve in PUMP position until wheel is clear of ground.
(b) Loosen wheel nuts and remove wheel.
(c) Remove tire and tube, using standard tire change procedures and tools.
(d) Repair or replace tire and tube.
(e) Replace wheel on hub and secure wheel nuts.
(f) Inflate tires to 45 PSIG for hard surface operation and to 30 PSIG for off road operation.

5.3.3 Wheel Bearings

Remove wheel bearings for replacement of lubrication as follows:

(a) Remove wheels.
(b) Remove dust cap, dust cap gasket, by removing cap screws and washers.
(c) Remove cotter pin, nut and washer from wheel spindle.
(d) Use wheel puller and remove brake drum from wheel spindle.
(e) Remove outer bearing from brake drum and inner bearing from wheel spindle.
(f) Clean bearings with solvent, Federal Specification P-D-680.
(g) Replace worn bearings.
(h) Refer to para 5.4 for wheel bearing packing.
(i) Replace bearings, brake drum, nut and washer on wheel spindle.
(j) Adjust nut on spindle by tightening, then backing off one turn.

(k) Secure nut to spindle with cotter pin.
(l) Install dust cap gasket and dust cap, secure to brake drum using cap screws and washers.
(m) After reassembly, test wheels for drag by spinning.

5.3.4 Brake Assemblies **(Part No. 7400017-502 only)**

Adjust brake assemblies as follows:

(a) Raise wheels.
(b) Rotate wheel while turning brake adjusting nut, until brake shoes grab and wheel stops. Back off nut until no drag is felt.
(c) Repeat this procedure at other wheels.
(d) Adjust parking brake by turning knob at end of handle to right to increase braking and to the left to decrease braking.
(e) When required, add hydraulic fluid, Federal Specification, VV-H-910 to service brake master cylinder.

5.3.5 Wheel Alignment

Adjust tie rods for front wheel toe in .25 inch. Rear wheels cannot be adjusted.

5.3.6 Hydraulic Pump

When the pump has been in operation for a period of time, leakage may occur at the pump plunger packing. This leaking can be stopped by tightening the pump plunger packing nut. When required, add hydraulic fluid, Specification MIL-H-5606, to within 0.500 inch of top of the pump.

5.3.6.1 Removal

(a) Disconnect, tag, and cap hydraulic lines at pump.
(b) Remove attaching hardware and remove hydraulic pump from dolly bracket.
(c) Drain hydraulic fluid from pump into a suitable container.

5.3.6.2 Disassembly

Disassemble the hydraulic pump.

5.3.6.3 Cleaning

Clean all parts with solvent Federal Specification P-D-680. Dry with clean, dry, compressed air.

5.3.6.4 Inspection

(a) Inspect springs for set or distortion.
(b) Inspect all threaded parts for stripped or crossed threads.
(c) Inspect check balls for signs of uneven wear.
(d) Inspect pump housing for cracks or breaks.

5.3.6.5 Repair or Replacement

(a) Replace all O-rings and gaskets at reassembly.
(b) Replace all parts found to be worn or defective during inspection.

5.3.6.6 Reassembly

Reassemble the hydraulic pump in the reverse order of disassembly.

5.3.6.7 Installation

(a) Bolt pump to bracket on dolly.
(b) Remove protective caps from hydraulic lines, and connect lines to pump ports.
(c) Service pump as outlined in para. 3.2.

5.4 Lubrication

Figure 2 indicates the areas to be lubricated, the method of lubrication, the type of lubricant and frequency of application. These instructions are applicable for all operating temperatures between -65°F (54°C) and 160°F (71°C). Remove all foreign matter from joints, fittings or bearing surfaces immediately before application of lubricant. Use a clean cloth saturated with solvent per Federal Specification P-D-680. Apply lubricant sparingly to prevent accumulation of contaminents. When applying lubricant through pressure-type fittings, insure that lubricant has emerged around bushing, then wipe away excess.

CAUTION

Petroleum base hydraulic fluid Military Specification Mil-H-5606 and non petroleum base hydraulic fluid Federal Specification VV-H-910 are incompatable and should never be used as alternates.

5.5 Brake Assemblies(Part No. 7400050-501 only)

Adjust brake assemblies as follows:

(a) Raise front wheels
(b) Remove dust cap from adjustment openings of backing plate assemblies of both wheels.
(c) Using a brake adjusting tool, turn nothced flange of adjusting screw at each wheel to expand brake assembly so that wheel locks.
(d) At each front wheel, pass a narrow screwdriver through adjustment opening and hold adjusting lever away from adjusting screw while backing off adjusting screw until turns with no drag (approximately 11 strokes of the adjusting tool). Then back off adjusting screw one more stroke.

(e) Adjust parking brake by turning knob at end of handle to right to increase braking and to the left to decrease braking.

(f) When required, add hydraulic fluid, Federal Specification, VV-B-680 to service brake master cylinder.

CAUTION

To prevent damage to parts, never back off adjusting screw without holding adjusting lever away from adjusting screw. Since adjusting lever is not in contact with adjusting screw in (d) above, no clicking will be heard as screw is turned.

5.6 Repair, Adjustment and Installation of Surge Brake Actuator

5.6.1 Repair and/or replacement of parts (See Figures 7-8 & 7-17)

To inspect, repair and replace parts, proceed as follows:

(a) Disconnect brake hose assembly and remove four (4) bolts holding surge brake to towbar.

(b) Loosen lock nut Item 11 Figure 7-17 and unscrew master cylinder, Item 12 off lunette assembly, Item 22.

(c) Remove retainer nut, Item 21.

(d) All floating parts may now be removed for inspection or replacement as required.

(e) Re-assemble parts in relation shown on Figure 7-17.

(f) Tighten retainer nut, Item 21.

(g) Reinstall actuator and lunette assembly on towbar; fill and bleed the brake system as in paragraph 3.4.

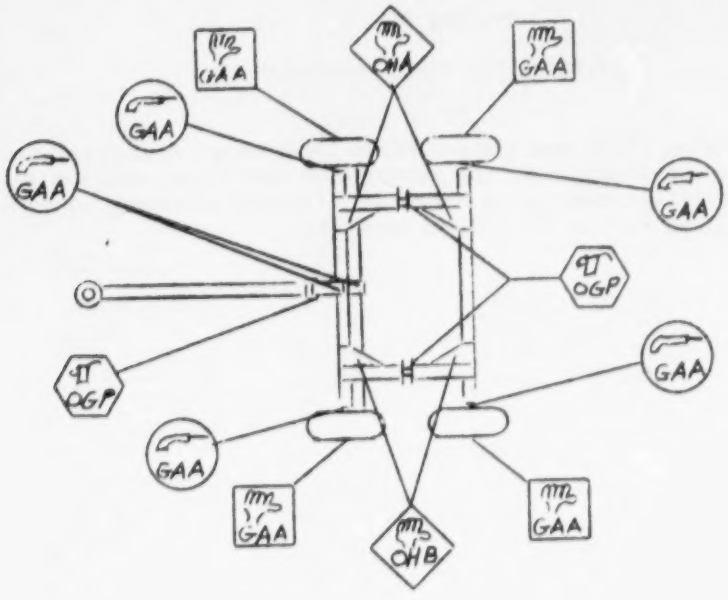
5.6.2 Surge Brake Adjustment

With reservoir cap removed, adjust brake as follows:

(a) Loosen jam nut in front of master cylinder.

(b) Looking down through filler cap, two holes will be seen. The smaller hole is used as an opening for adjustment.

(c) Use a wire approximately .020 inches diameter as a feeler by threading the wire down through the small hole so that when the master cylinder is rotated in its threaded support, the wire will be felt to contact the edge of the piston cup. Rotate the master cylinder to its normal vertical position and tighten the jam nut. Do not rotate cylinder beyond where cup was felt with the wire to align cylinder in vertical position. If the unit is threaded too far, leakage may occur around the front of the piston during the backing up cycle. Two grease fittings are provided on actuator tube. Three shots every 1,000 miles, or at the most every 6 months is sufficient.



LEGEND

Interval Symbols	Symbols and Types of Lubricants	Temperature Ranges and Lubricant Specifications -65°F (-54°C) to 160°F (71°C)	Application Symbols
6 months	GAA Grease, Automotive and Artillery	Military Specification MIL-G-10924	Grease Gun
2 months	OHA Fluid, Hydraulic Petroleum Base	Military Specification MIL-H-5606	Oil Can
Weekly	OHB Fluid, Hydraulic, Non-petroleum Base	Federal Specification VV-H-910	Brush
As required	OGP Oil, Lubricating General Purpose	Military Specification MIL-L-15016	Hand

Figure 2 Lubrication Chart

Section VI.

ILLUSTRATED PARTS BREAKDOWN

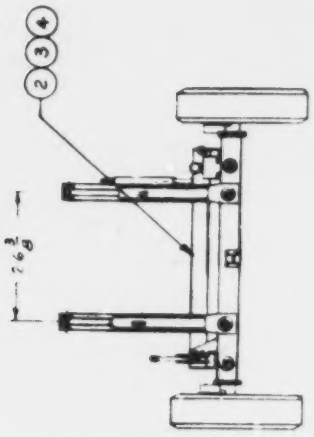
The following illustrations and parts breakdowns, including Figure 6-1 thru Figure 6-18, apply to the 7400017-502 Mobilizer, and are followed by a second illustrated parts breakdown, including Figure 7-1 thru 7-18, which applies to the 7400050-501 Mobilizer.

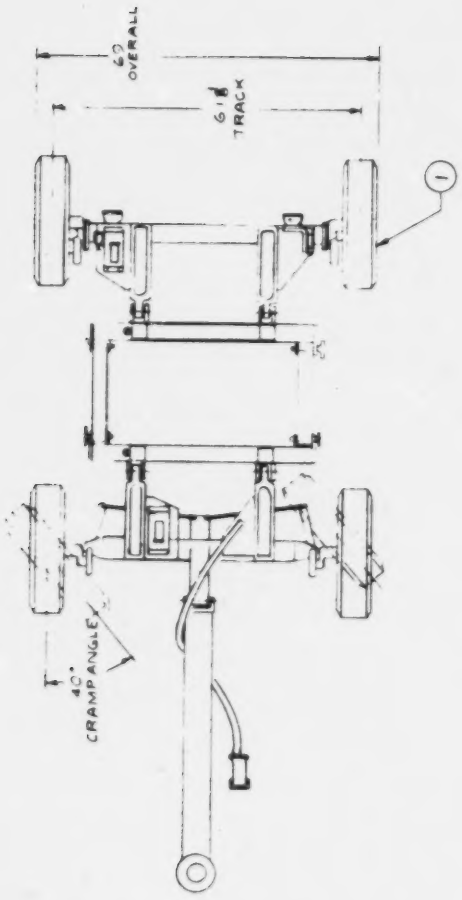
GMS Part No.
7400017-502

ASSEMBLY, MOBILIZER
MODEL 4003
LIST OF MATERIAL

502 Req'd.	Item No.	Part No.	Mfg. Code	Description
1	1	6400018-502	16128	Axles & Bracket Assy.
2	2	3670052-4	16128	Tie Cable Assy.
1	3	6967008-503	16128	Harness Assy. Elect.
1	4	6967005-504	16128	Hose and Coupling Assy.

Figure 6-1 Sheet 1 of 2





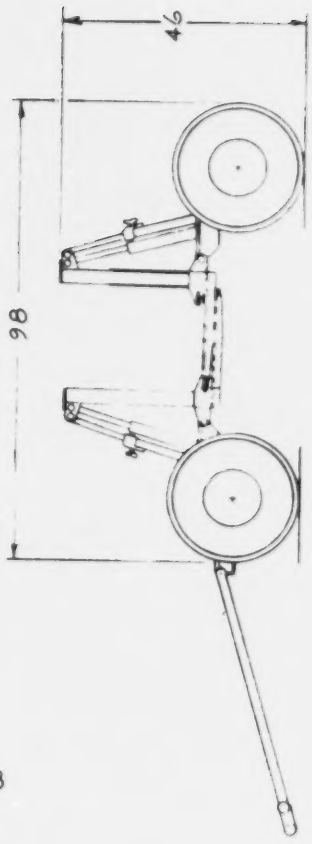


FIG 6-1
SHT 2 OF 2

GMS Part No.
6400018-502

AXLES AND ATTACHING BRACKET ASSY.
LIST OF MATERIAL

502 Req'd.	Item No.	Part No.	Mfg. Code	Description
	1			Deleted
	2			Deleted
1	3	7400016-501	16128	Adapter Assembly Front
1	4	7400016-502	16128	Adapter Assembly Rear
4	5	4400010-001	96652	Pin Straight Headed 5/8 Dia.
4	6	5400029-501	16128	Lock Pin Assembly
2	7	B2808-175	16128	Pump Handle Assembly
8	8	4400011-001	96652	Pin Straight Headed 3/4 dia
	9			Deleted
12	10	MS9048-141	96906	Pin, Spring Steel 5/32x1-1/4 lg.
	11			Deleted
	12			Deleted
	13			Deleted
1	14	7400012-502	16128	Axle Assembly, Front
1	15	7400020-502	16128	Axle Assembly, Rear

Figure 6-2 Sheet 1 of 2

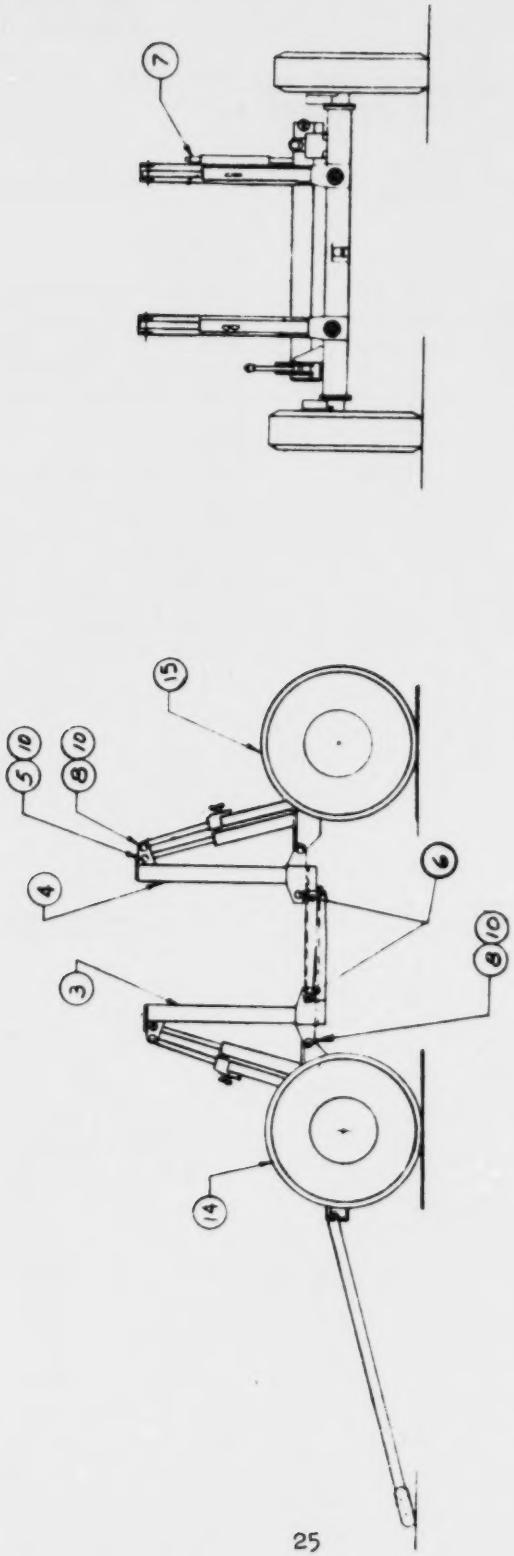


FIG. 6-2
SHT 2 OF 2

GMS Part No.
7400012-502

AXLE ASSEMBLY, FRONT
LIST OF MATERIAL

502 Req'd.	Item No.	Part No.	Mfg. Code	Description
2	1	6400016-501	16128	Tie Rod Assembly
	2			Deleted
2	3	B3373-43	16128	Strut Assembly, Lower
2	4	6967003-504	16128	Hose Assembly
2	5	B2808-69	45681	Connector
3	6	B2808-72	05766	Nut, Seal
2	7	B2808-168	06853	Clamp
2	8	B2888-13	05842	Cylinder, Hydraulic
2	9	B3373-76	16128	Pin,,Clevis
	10			Deleted
2	11	B3373-44	16128	Mobilizer Brace, Upper
4	12	B3375-57	16128	Pin, Clevis
1	13	740028-501	16128	Axle Sub Assembly, Front
	14			Deleted
1	15	5400023-001	16128	Tube, Hydraulic
1	16	5400022-001	16128	Tube, Hydraulic
2	17	6600057-501	16128	Chain Assembly Safety
2	18	5600103-001	81581	Link Connecting
2	19	B3373-31	95406	Valve, Air Vent
	20			Deleted
1	21	B2808-54	45681	Elbow, Female
1	22	6400028-501	16128	Drawbar Assembly
2	23	3425189	45681	Male Outlet Tee
1	24	B2808-49	45681	Pipe Nipple
4	25	B2808-68	45681	Ferrule
2	26	B3010A102	45681	Street Elbow, 45°
1	27	B2808-67	45681	Cap, Ferulok Mtg.
2	28	440002-001	84971	Clamp-Center Mtg. Type
	29			Deleted
	30			Deleted
	31			Deleted
1	32	7400023-501	16128	Service Brake System
2	33	MS35223-79	96906	Screw, Binding Hd.
2	34	B3155-134	16128	Clip, Brake Line
6	35	MS35338-25	96906	Washer, Spring Lock
6	36	AN960-1216	88044	Washer, Flat
6	37	MS9048-170	96906	Pin, Spring Steel
	38			Deleted
	39			Deleted
	40			Deleted
	41			Deleted
	42			Deleted
2	43	MS20365-832	96906	Nut, Self-Locking
2	44	MS35223-45	96906	Screw, Binding Hd.
	45			Deleted
2	46	MS35292-31	96906	Screw, Cap Hex Hd.
2	47	MS35338-26	96906	Washer, Lock
2	48	AN960-416	88044	Washer, Flat

Figure 6-3

(CONTINUED)

LIST OF MATERIAL

502 Req'd	Item No.	Part No.	Mfg. Code	Description
2	49	MS51967-1	96906	Nut, Plain, Hex
2	50	MS90725-7	96906	Screw, Hex Hd.
1	51	7400024-502	16128	Wheel Assy. Left Hand Side
1	52	7400024-501	16128	Wheel Assy. Right Hand Side
4	53	5400046-001	16128	Gasket
4	54	5400047-001	16128	Plate
2	55	5400048-001	16128	Kingpin
2	56	5400049-001	16128	Washer, Thrust
8	57	MS21318-15	96906	Screw, Drive, Rd. Hd.
2	58	AN945-5P	88044	Washer, Plain Commer.

Figure 6-3 Sheet 2 of 4

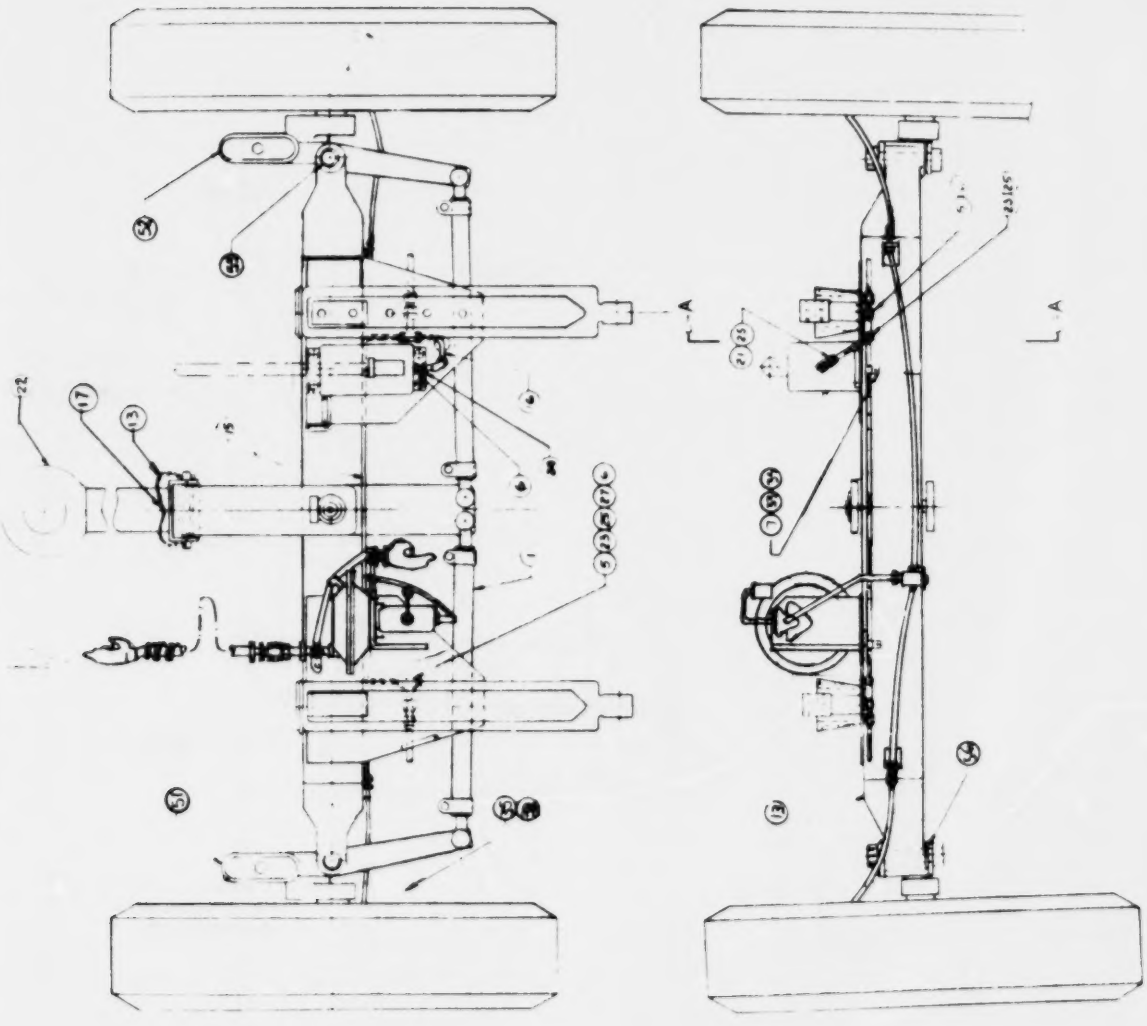
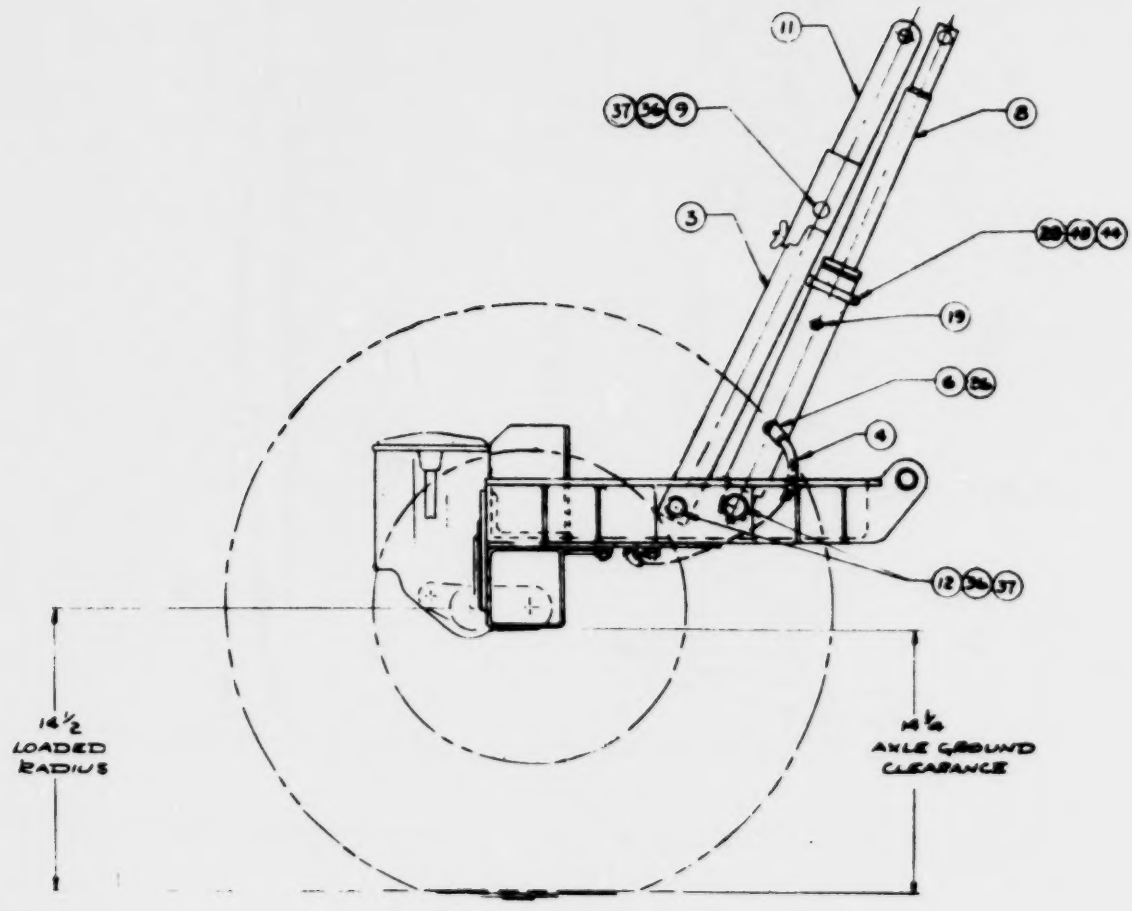


FIG 6-3
SHT 3 OF 4



A-A

FIG. 6-3
SHT 4 OF 4

GMS PART NO.
7400028-501

AXLE SUB ASSEMBLY, FRONT
LIST OF MATERIAL

501 Req'd	Item	Part No.	Mfg. Code	Description
1	1	7400026-501	16128	Axle Weldment Front
1	2	6400026-501	16128	Arm Assy, Steering
1	3	5960427-001	16128	Nameplate
1	4	5960425-001	16128	Plate Identification
2	5	5600245-002	16128	Bushing, Sleeve
2	6	5600160-001	16128	Washer, Thrust
1	7	5600158-001	16128	Plate
1	8	5400045-001	16128	Gasket
1	9	5400044-001	16128	Pin, Steering Arm
1	10	3520031	16128	Pump, Hydraulic
1	11	B2715-19	16128	Tag, Instruction
2	12	B2530-60	16128	Backup Angle
2	13	B2530-22	16128	Casting, Lift Arm
1	14	B1592-44-1	16128	Tag, "Pump"
1	15	B1592-44-2	16128	Tag, "Release"
1	16	MS9048-178	96906	Pin, Spring
2	17	MS16997-43	96906	Screw, Cap, Socket Hd
4	18	MS35223-79	96906	Screw, Mach, Pan Hd
2	19	MS35292-36	96906	Screw, Cap, Hex Hd
4	20	MS35292-60	96906	Screw, Cap, Hex Hd
6	21	MS35298-64	96906	Screw, Cap, Hex Hd
2	22	MS35338-24	96906	Lock Washer
4	23	MS35338-25	96906	Lock Washer
4	24	MS35338-26	96906	Lock Washer
14	25	MS35338-27	96906	Lock Washer
2	26	MS35387-2	96906	Reflector, Amber
2	27	MS51020-85	96906	Set Screw, Cup Point
4	28	AN325-5	88044	Nut, Plain, Hex
12	29	AN325-6	88044	Nut, Plain, Hex
14	30	AN535-2-3	88044	Screw, Drive Rd Hd
2	31	AN960-516	88044	Washer, Flat
10	32	AN960-616	88044	Washer, Flat
2	33	TA616-5-12	84971	Clamp, Loop Type
4	34	MS90726-62	96906	Screw, Cap, Hex Hd
2	35	MS90726-34	96906	Screw, Cap, Hex Hd
4	36	AN945-6P	88044	Washer, Plain, Commer

Figure 6-4 Sht 1 of 2

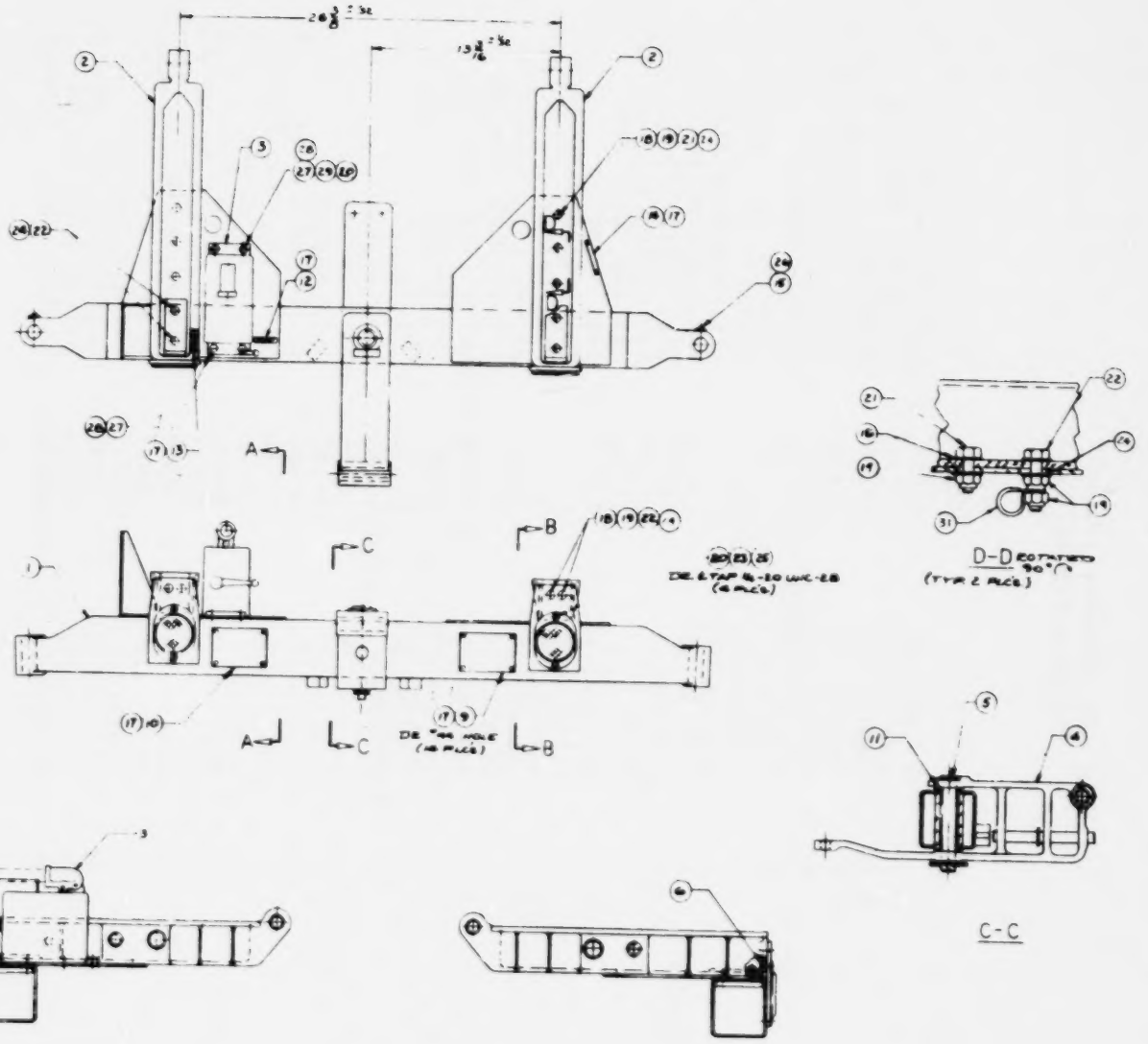


FIG. 6-4
SHT 2 OF 2

GMS PART NO.
7400024-501 R. H. Side
7400024-502 L. H. Side

FRONT WHEEL & BRAKE ASSEMBLY
LIST OF MATERIAL

502 Req'd	501 Req'd	Item	Part No.	Mfg. Code	Description
1		1	7400030-501	16128	Suspension Assy, Front R.H.
	1	2	7400030-502	16128	Suspension Assy, Front L.H.
1	1	3	500128	00000	Seal
2	2	4	7371106	00000	Nut, Wheel Bearing, Lock
1	1	5	7371109	00000	Gasket
1	1	6	7696520	00000	Washer, Bearing Lock
1	1	7	7696521	00000	Washer, Nut Lock
1	1	8	7735821	00000	Cap, Grease
		9	Deleted		--
12	12	10	MS35338-27	96906	Washer, Lock
6	6	11	MS90725-59	96906	Screw, Cap Hex Hd
6	6	12	MS90726-60	96906	Screw, Cap Hex Hd
-	5	13	24568	33116	Bolt R.H.
5	-	14	24569	33116	Bolt L.H.
1	1	15	25649	33116	Hub
1	1	16	29502	33116	Drum
2	2	17	18520	60038	Cup
2	2	18	18590	60038	Cone
-	5	19	24575 R.H.	33116	Wheel Nut
1		20	318457	14892	Brake Assy, L.H.
-	1	21	318458	14892	Brake Assy, R.H.
6	6	22	MS35690-622	96906	Nut, Plain
1	1	23	MS35388-9	96906	Tire
1	1	24	MS35392-8	96906	Tube
1	1	25	7387807	00000	Wheel Assembly
1	1	26	#6	95760	Caplug
5		27	24576	33116	Wheel Nut

Figure 6-5 Sheet 1 of 2

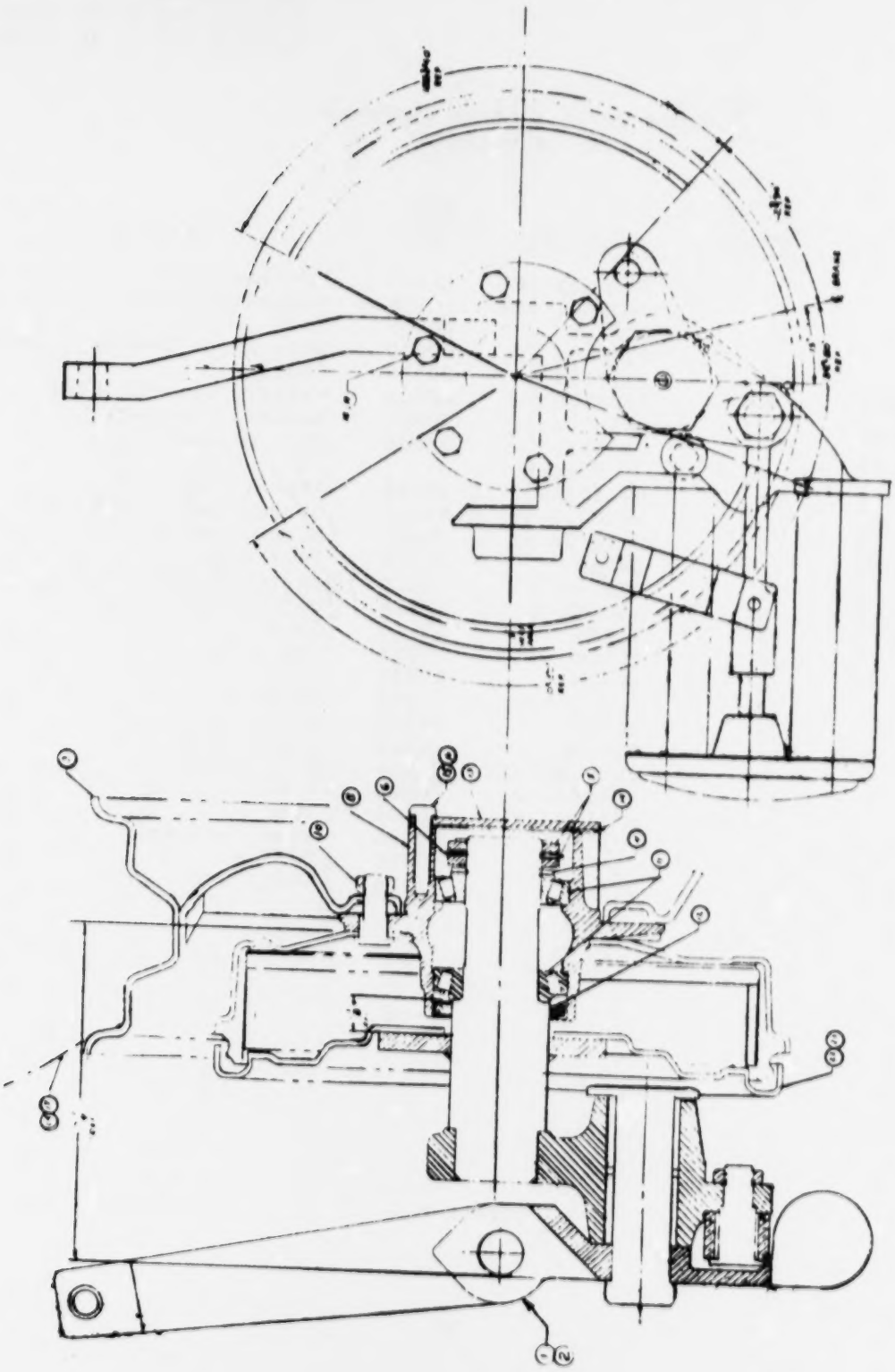


FIG 6-5
SHT 2OF2

GMS PART NO.
6400026-501

ARM, STEERING, ASSEMBLY
LIST OF MATERIAL

Req'd	Item	Part No.	Mfg. Code	Description
1	1	7400027-001	16128	Arm, Steering
1	2	5600245-001	16128	Bushing, Sleeve
1	3	B3508-19	16128	Spring, Helical, Compr.
1	4	B3373-74	16128	Pin, Lock
1	5	MS904R-111	96906	Pin, Spring
1	6	MS15001-1	96906	Fitting, Lubrication
1	7	AN960-C1216	88044	Washer, Flat

Figure 6-6 Sheet 1 of 2

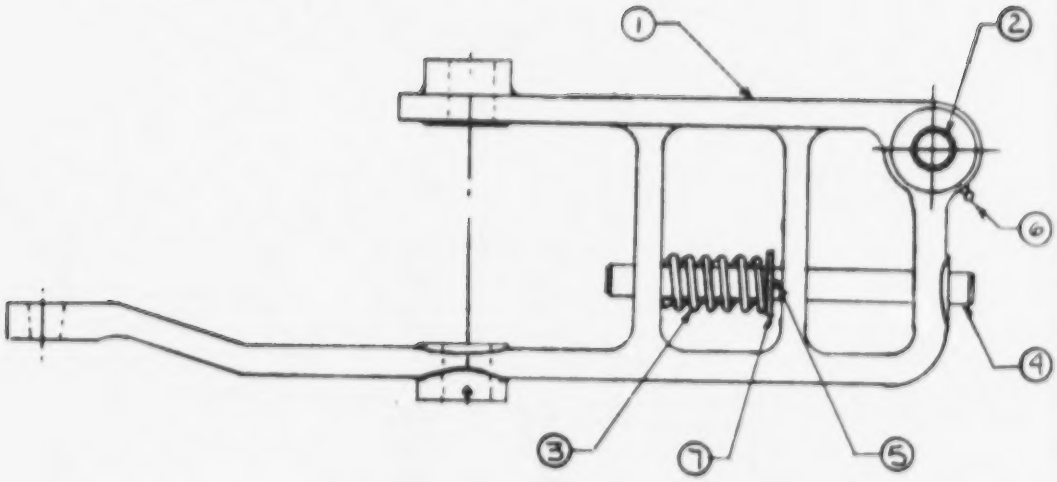


FIG. 6-C
SHT 2 OF 2

GMS PART NO.
740030-501 L.H. Side
740030-502 R.H. Side

SUSPENSION ASSEMBLY, FRONT
LIST OF MATERIAL

502 Req'd	501 Req'd	Item	Part No.	Mfg. Code	Description
-	1	1	6400017-501	16128	Bracket Assy, Spindle
1	-	2	6400017-502	16128	Bracket Assy, Spindle
1	1	3	B1592-206	16128	Cap, Spring
2	2	4	B1592-207	16128	Spring, Compression
1	1	5	B1592-212	16128	Rod Assy, Connecting
1	1	6	B1592-214	16128	Retainer Assy, Spring
2	2	7	B1592-224	16128	Plug, Compression
		8	Deleted		--
		9	Deleted		--
1	1	10	B2530-81	16128	Washer, Retainer
1	1	11	B2715-9	16128	Screw, Shoulder
1	1	12	B3417-51	16128	Bolt Captivating
1	1	13	B3522-20	16128	Bolt, Retainer
2	2	14	MS9048-071	96906	Pin, Spring
		15	Deleted		--
2	2	16	MS15001-3	96906	Fitting, Lubrication
		17	Deleted		--
1	1	18	MS51019-65	96906	Set Screw, Socket
1	1	19	AN935-1016	88044	Washer, Lock
1	1	20	AN960-416	88044	Washer, Flat
2	2	21	AN960-516	88044	Washer, Flat
-	1	22	7400029-501	16128	Hinge Assy, Front L.H.
1	-	23	7400029-502	16128	Hinge Assy, Front R.H.
1	1	24	MS90726-119	96906	Screw, Cap, Hex Hd
1	1	25	MS51968-13	96906	Nut, Plain
1	1	26	MS35691-1022	96906	Nut, Hex, Jam

Figure 6-7

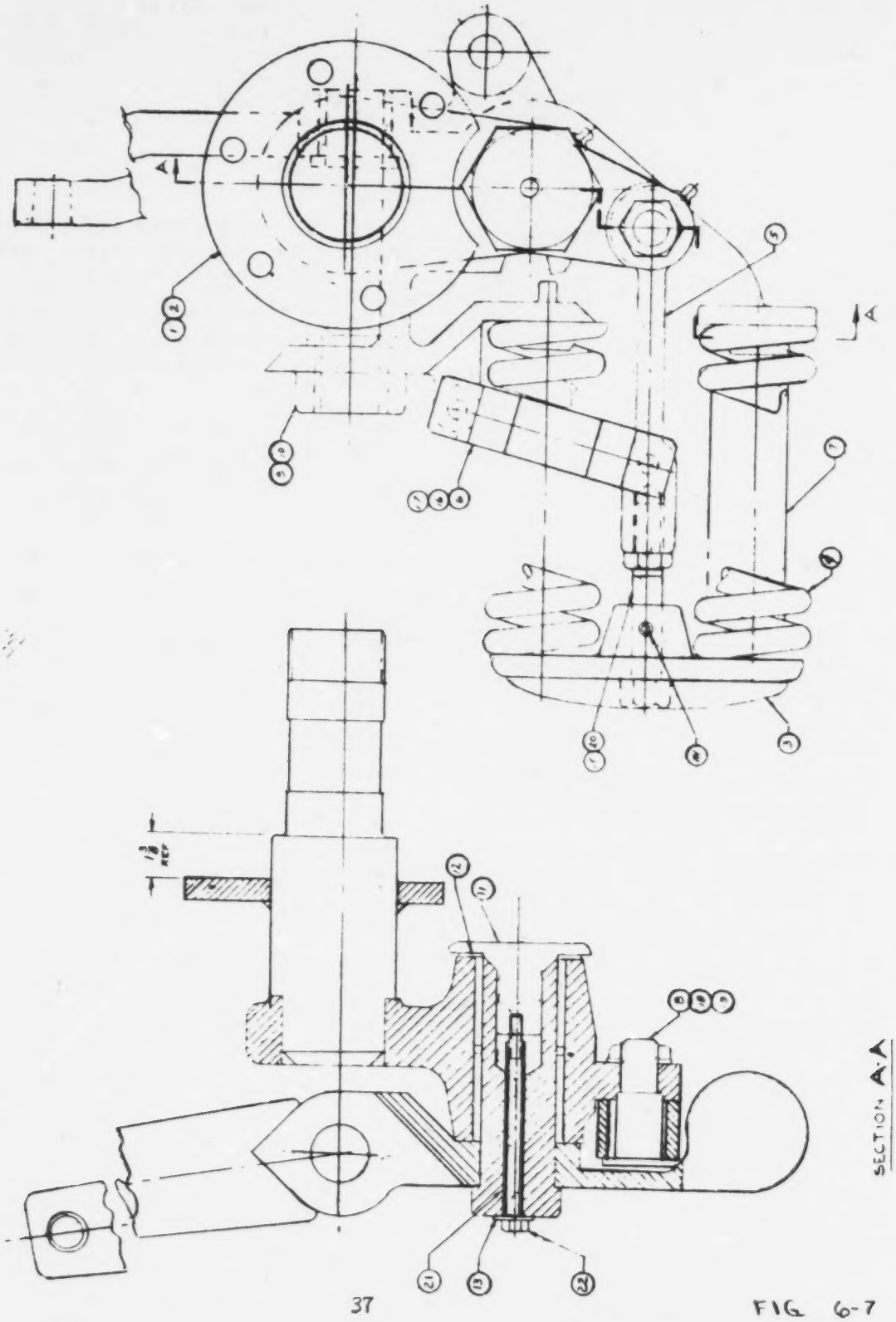


FIG 6-7
SHT 2 OF 2

GMS PART NO.
7400020-502

AXLE ASSEMBLY, REAR
LIST OF MATERIAL

502 Req'd	Item	Part No.	Mfg. Code	Description
4	1	B3375-57	16128	Pin, Clevis
2	2	6967003-504	16128	Hose Assembly
1	3	B2740-103-11	92867	Brake Cable Assembly
1	4	B2740-103-10	92867	Brake Cable Assembly
2	5	B2808-69	45681	Connector
5	6	B2808-72	05766	Nut, Seal
7	7	B2808-167	63477	Clamp
6	8	B2808-168	06853	Clamp
2	9	B2888-13	05842	Cylinder, Hydraulic
1	10	B2808-90	92867	Brake Lever Assembly
1	11	7400019-502	16128	Axle Sub Assy Rear
1	12	7400023-502	16128	Service Brake System
2	13	B3373-31	95406	Valve, Air Vent
	14	Deleted		
2	15	B3373-43	16128	Strut Assembly
2	16	B3373-44	16128	Brace Assembly, Upper
2	17	B3373-76	16128	Pin, Clevis
1	18	5400039-001	16128	Tube, Hydraulic
1	19	6400021-001	16128	Tube, Hydraulic
2	20	3425189	45681	Male Outlet, Tee
1	21	3425166	45681	Male Connector
4	22	B2808-68	45681	Ferrule
4	23	MS35690-402	96906	Nut, Plain Hex
1	24	B3010A102	45681	Street, Elbow 45°
1	25	B2808-67	45681	Cap, Ferulok Fitting
2	26	AN960-416	88044	Washer, Flat
	27	Deleted		--
4	28	MS20365-524	96906	Nut, Self-locking
6	29	MS20365-1216	96906	Nut, Self-locking
12	30	MS35223-79	96906	Screw, Binding Hd.
4	31	MS35292-39	96906	Bolt, Hex Hd.
6	32	MS35292-187	96906	Bolt, Hex Hd.
16	33	MS35338-25	96906	Washer, Lock Spring
2	34	MS35239-143	96906	Bolt, Flat Hd.
6	35	AN960-1216	88044	Washer, Flat
6	36	MS9048-170	96906	Pin, Spring Steel
2	37	MS35223-45	96906	Screw, Binding Hd.
	38	Deleted		--
2	39	4400002-001	84971	Clamp, Ctr. Mtg. Type
2	40	Deleted		--
2	41	MS20365-832	96906	Nut, Hex Self Locking
2	42	3425187-7	16128	Nut, Self Locking
4	43	MS35223-81	96906	Screw, Machine, Pan Hd.
	44	Deleted		--
4	45	MS35338-27	96906	Washer, Spring Lock
	46	Deleted		--
2	47	ORD 8722870	00000	Clip
2	48	ORD 8378785	00000	Lamp
1	49	MS51302	96906	Lamp

AXLE ASSEMBLY, REAR
LIST OF MATERIAL (Cont'd)

502 Req'd	Item	Part No.	Mfg. Code	Description
4	50	MS35291-58	96906	Bolt, Hex Hd.
1	51	MS35292-29	96906	Bolt, Hex Hd.
1	52	MS35338-26	96906	Washer, Lock Spring
1	53	7400025-502	16128	Wheel Assy L. H. Side
1	54	7400025-501	16128	Wheel Assy R. H. Side
3	55	B2808-57	92869	Spacer
2	56	B2808-58	92869	Clamp
1	57	B2808-59	92869	Spacer
2	58	#572	92869	Pin, Clevis
2	59	MS24665-134	96906	Pin, Cotter
1	60	6400030-501	16128	Harness Assy, Rear

Figure 6-8

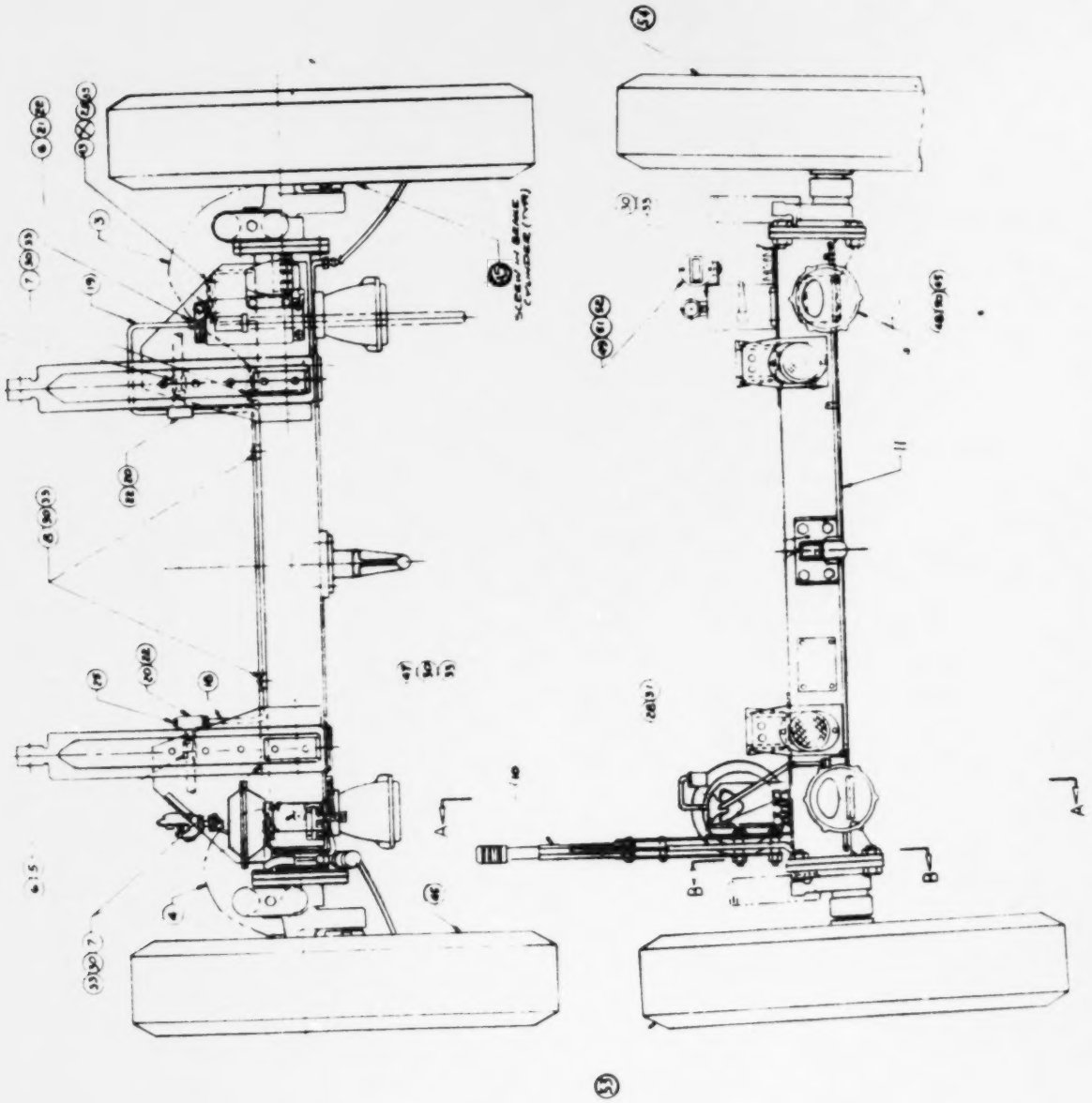
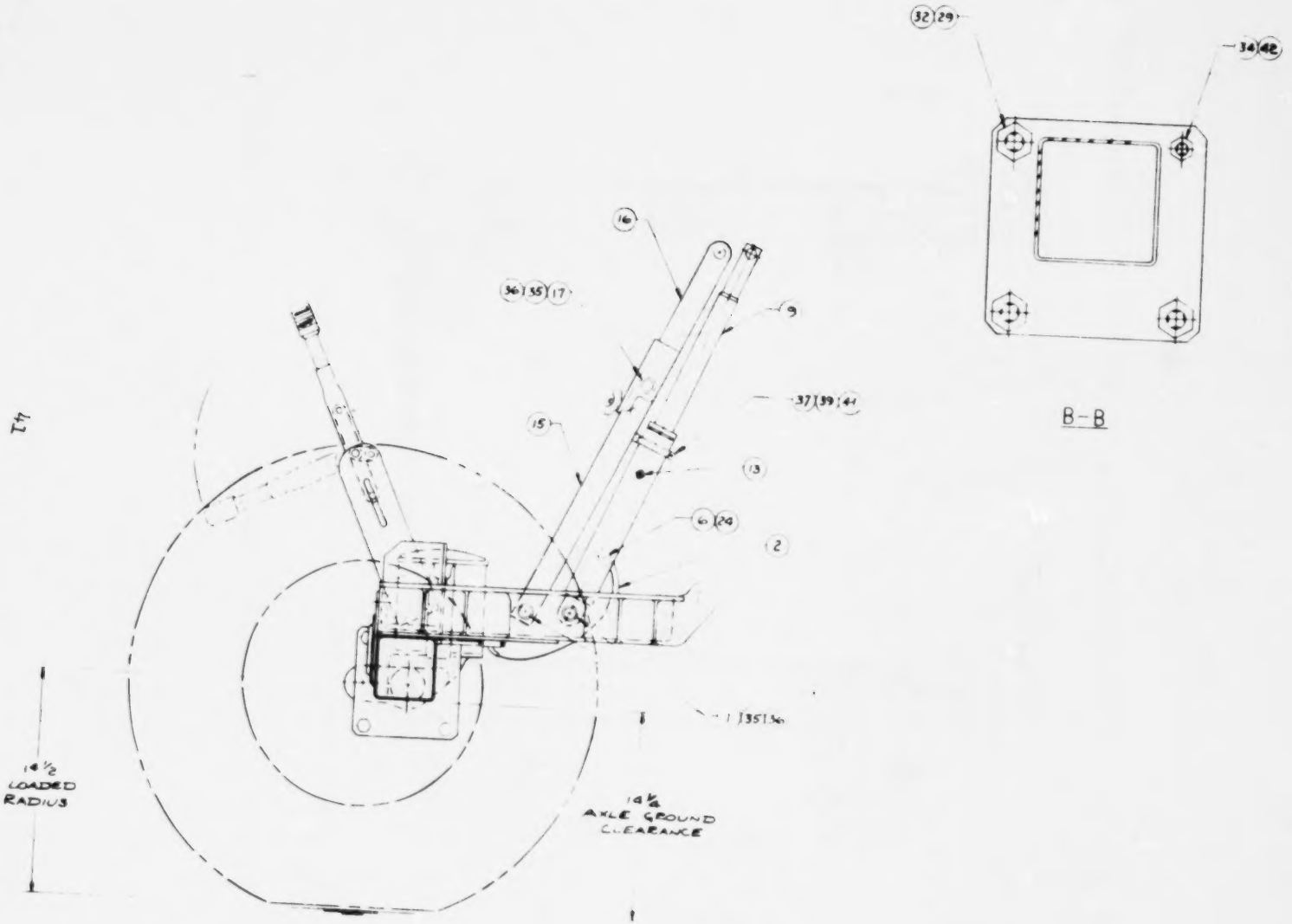


FIG 6-8
SHT 3 OF 4



41

FIG 6-8
SHT. 4 OF 4

GMS PART NO.
7400019-502

AXLE SUB ASSEMBLY, REAR
LIST OF MATERIAL

502 Req'd	Item	Part No.	Mfg. Code	Description
	1	Deleted		--
2	2	TA614-5-12	84971	Clamp
	3	Deleted		--
1	4	B1592-44-1	16128	Tag "Pump"
1	5	B1592-44-2	16128	Tag "Release"
2	6	B2530-22	16128	Lift Arm Casting Assembly
2	7	B2530-60	16128	Back Up Angle
1	8	7400031-501	16128	Axle Weldment, Rear
1	9	B2715-19	16128	Tag, Instruction
1	10	B3100-22	15397	Pintle Hook Assembly
1	11	3520031	20805	Pump, Hydraulic
12	12	AN325-6	88044	Nut, Plain Hex
10	13	AN535-2-3	88044	Screw Drive, R.H.
6	14	AN960-616	88044	Washer, Flat
1	15	5960426-001	16128	Plate, Identification
4	16	MS35223-79	96906	Screw, Pan Hd.
4	17	MS35292-60	96906	Bolt, H-x Hd.
4	18	MS35292-113	96906	Bolt, Hex Hd.
6	19	MS35298-64	96906	Bolt, Hex Hd. (H.T.)
10	20	MS35338-25	96906	Washer, Spring Lock
14	21	MS35338-27	96906	Washer, Spring Lock
4	22	MS35338-29	96906	Washer, Spring Lock
2	23	MS35387-1	96906	Reflector (Red)
1	24	B3100-15	16128	Bracket, Blackout
2	25	B3100-13	16128	Bracket, Tail Light
6	26	MS35223-81	96906	Screw, Pan Hd.
2	27	MS35292-36	96906	Bolt, Hex Hd.
4	28	MS35338-26	96906	Washer, Spring Lock
2	29	AN960-516	88044	Washer, Flat
2	30	AN325-5	88044	Nut, Plain
2	31	MS90726-34	96906	Screw, Mach. Hex Hd
4	32	MS90726-62	96906	Screw, Mach, Hex Hd
4	33	AN945-6P	88044	Washer, Plain, Commer.

Figure 6-9 Sht 1 of 2

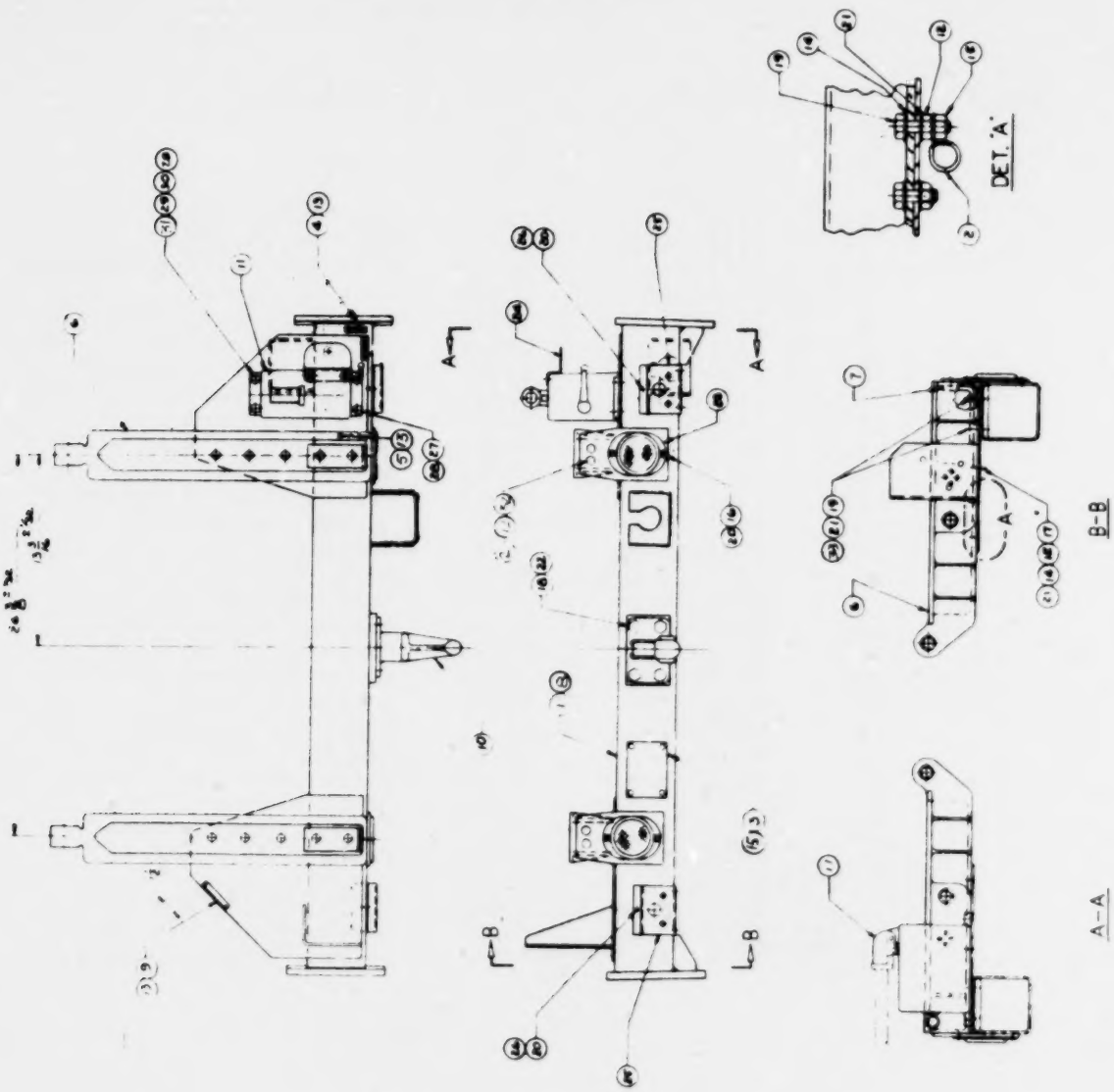


FIG 6-9
SHT 20F2

GMS PART NO.
7400025-501 R.H. Side
7400025-502 L.H. Side

WHEEL & BRAKE ASSEMBLY, REAR
LIST OF MATERIAL

502 Req'd	501 Req'd	Item	Part No.	Mfg. Code	Description
-	1	1	7400022-502	16128	Suspension Assy R.H.
1	-	2	7400022-501	16128	Suspension Assy L.H.
		3	Deleted		--
		4	Deleted		--
1	1	5	500128	00000	Seal
2	2	6	7371106	00000	Nut, Wheel Bearing Lock
1	1	7	7371109	00000	Gasket
1	1	8	7696520	00000	Washer, Bearing Lock
1	1	9	7696521	00000	Washer, Nut Lock
1	1	10	7735821	00000	Cap, Grease
		11	Deleted		--
12	12	12	MS35338-27	96906	Washer, Lock
o	6	13	MS90725-59	96906	Screw, Cap Hex Hd
o	6	14	MS90726-60	96906	Screw, Cap Hex Hd
	5	15	24568	33116	Bolt, R.H.
5	-	16	24569	33116	Bolt, L.H.
1	1	17	25649	33116	Hub
1	1	18	29502	33116	Drum
2	2	19	18520	60038	Cup
2	2	20	18590	60038	Cone
5	-	21	24576 L.H.	33116	Wheel Nut
1	-	22	318457	14892	Brake Assy L.H.
-	1	23	318458	14892	Brake Assy R.H.
6	6	24	MS35690-622	96906	Nut, Plain
1	1	25	7387807	00000	Wheel Assy
1	1	26	MS35388-9	96906	Tire
1	1	27	MS35392-8	96906	Tube
-	5	28	24575 R.H.	33116	Wheel Nut

Figure 6-10 Sht 1 of 2

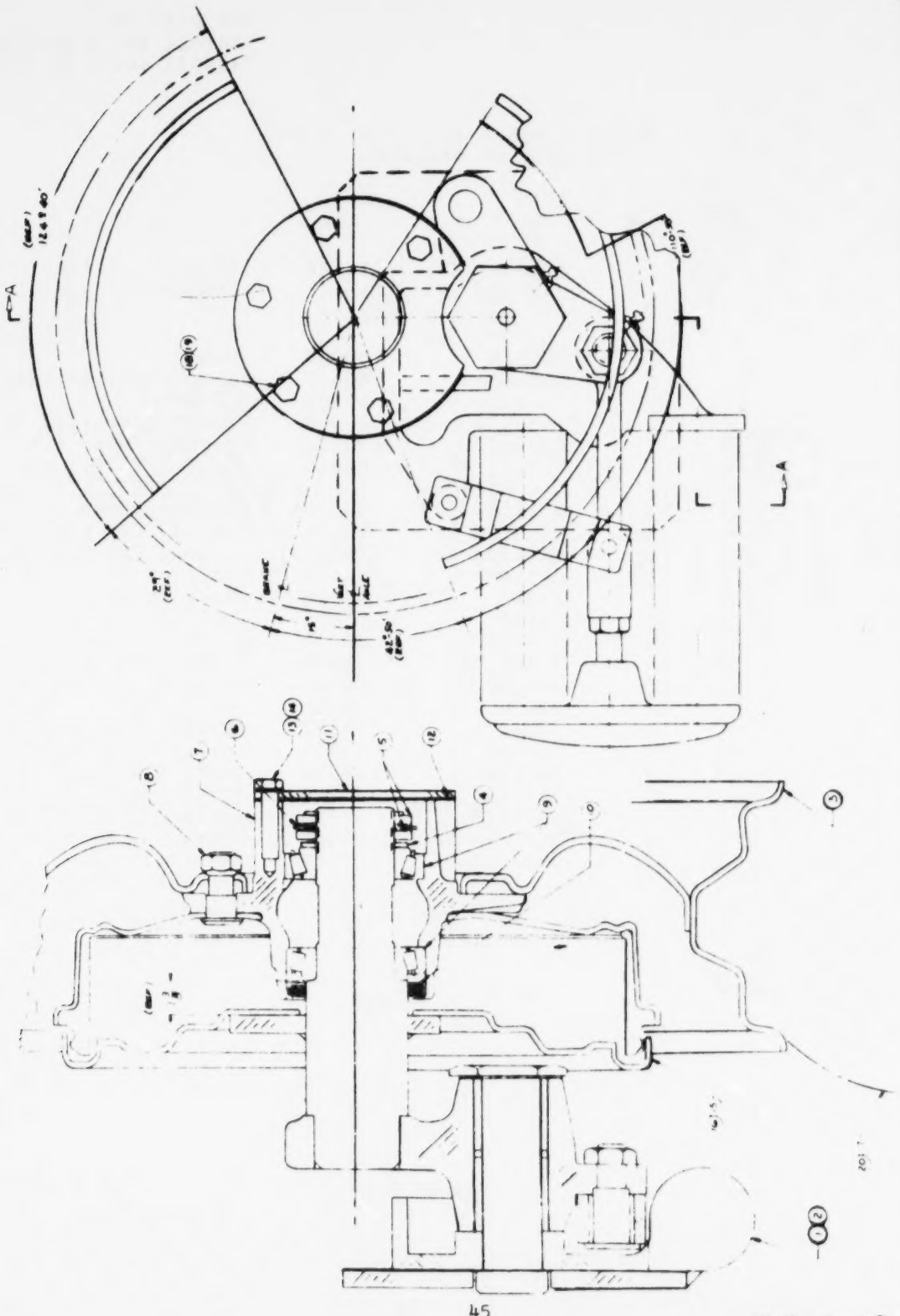


FIG 6-10
SHT 2 OF 2

SUSPENSION ASSEMBLY, REAR

GMS PART NO.

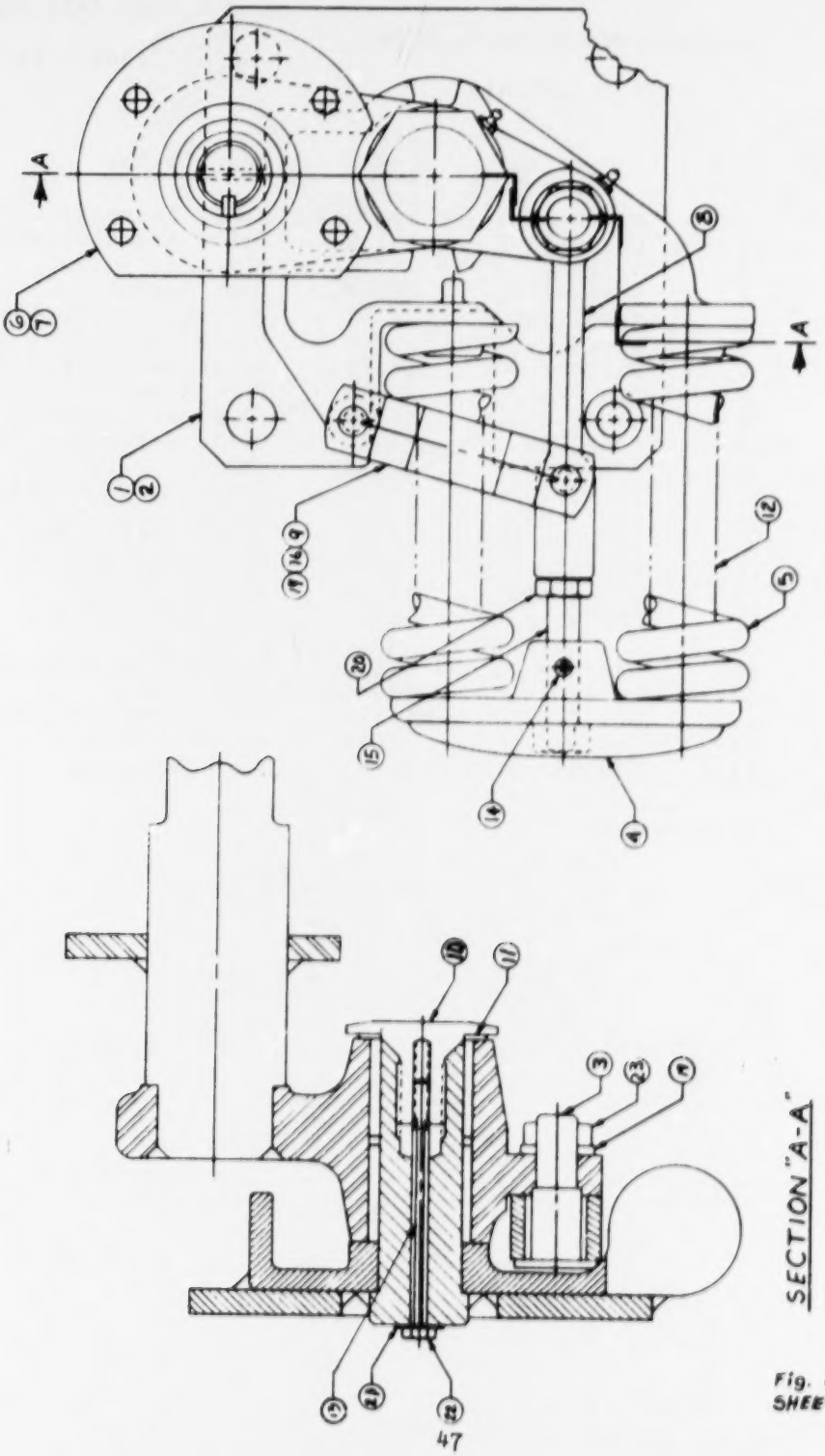
7400022-502

LIST OF MATERIAL

502 Req'd	501 Req'd	Item	Part No.	Mfg. Code	Description
-	1	1	B2200-32-1	16128	Brkt. Assembly L.H.
1	-	2	B2200-32-2	16128	Brkt. Assembly R.H.
1	1	3	B2715-9	16128	Shoulder Screw
1	1	4	B1592-206	16128	Cap, Spring
2	2	5	B1592-207	16128	Spring, Compression
-	1	6	6400017-501	16128	Hinge Assembly L.H.
1	-	7	6400017-502	16128	Hinge Assembly R.H.
1	1	8	B1592-212	16128	Rod Assembly Connecting
1	1	9	B1592-214	16128	Retainer Assembly Spring
1	1	10	B3522-20	16128	Bolt, Retainer
1	1	11	B2530-81	16128	Washer, Retainer
2	2	12	B1592-224	16128	Compression - Plug
1	1	13	B3417-50	16128	Spacer
1	1	14	MS51019-65	96906	Screw Socket Set
1	1	15	MS90726-119	96906	Screw Cap Hex Hd.
2	2	16	AN960-516	88044	Washer, Flat
2	2	17	MS9047-071	96906	Pin Spring Stl.
-	-	18	Deleted		--
1	1	19	MS35338-31	96906	Washer, Lock Spring
1	1	20	MS51968-13	96906	Nut, Plain
1	1	21	B3417-51	16128	Bolt, Captivating
1	1	22	AN960-416	88044	Washer, Flat
1	1	23	MS35691-1022	96906	Nut, Hex, Jam

Figure 6 - 11

Sht 1 of 2



SECTION "A-A"

Fig. 6-11
SHEET 2 OF 2

ADAPTER ASSEMBLY

LIST OF MATERIAL

GMS PART NO.
7400016-501 (Front)
7400016-502 (Rear)

502 Req'd	501 Req'd	Item	Part No.	Mfg. Code	Description
1	1	1	4400007-001	16128	Tube, Torsion
2	2	2	4400006-001	16128	Tube, Pylon
2	2	3	4400005-001	16128	Plt. Pylon Cap
2	2	4	5400011-001	16128	Brkt. Upper
2	2	5	5400011-002	16128	Brkt. Upper
2	2	6	5400010-001	16128	Brkt. Lower
2	2	7	5400010-002	16128	Brkt. Lower
-	2	8	5400035-501	16128	Lift Channel Assembly
4	4	9	5400038-001	16128	Strap Pylon
2	2	10	5400030-001	16128	Side Plate
2	2	11	5400031-001	16128	End Plate
2	2	12	4400004-001	16128	Bar
2	2	13	4400004-002	16128	Bar
4	4	14	5967007-001	16128	Brkt. Tension Cable
2	-	15	5400032-501	16128	Lift Channel Assembly
1	1	16	5400036-501	16128	Bracket Assembly
1	1	17	4400003-001	16128	Bumper Rubber
1	1	18	MS35223-79	96906	Screw Pan Head

Figure 6-12

Sht 1 of 2

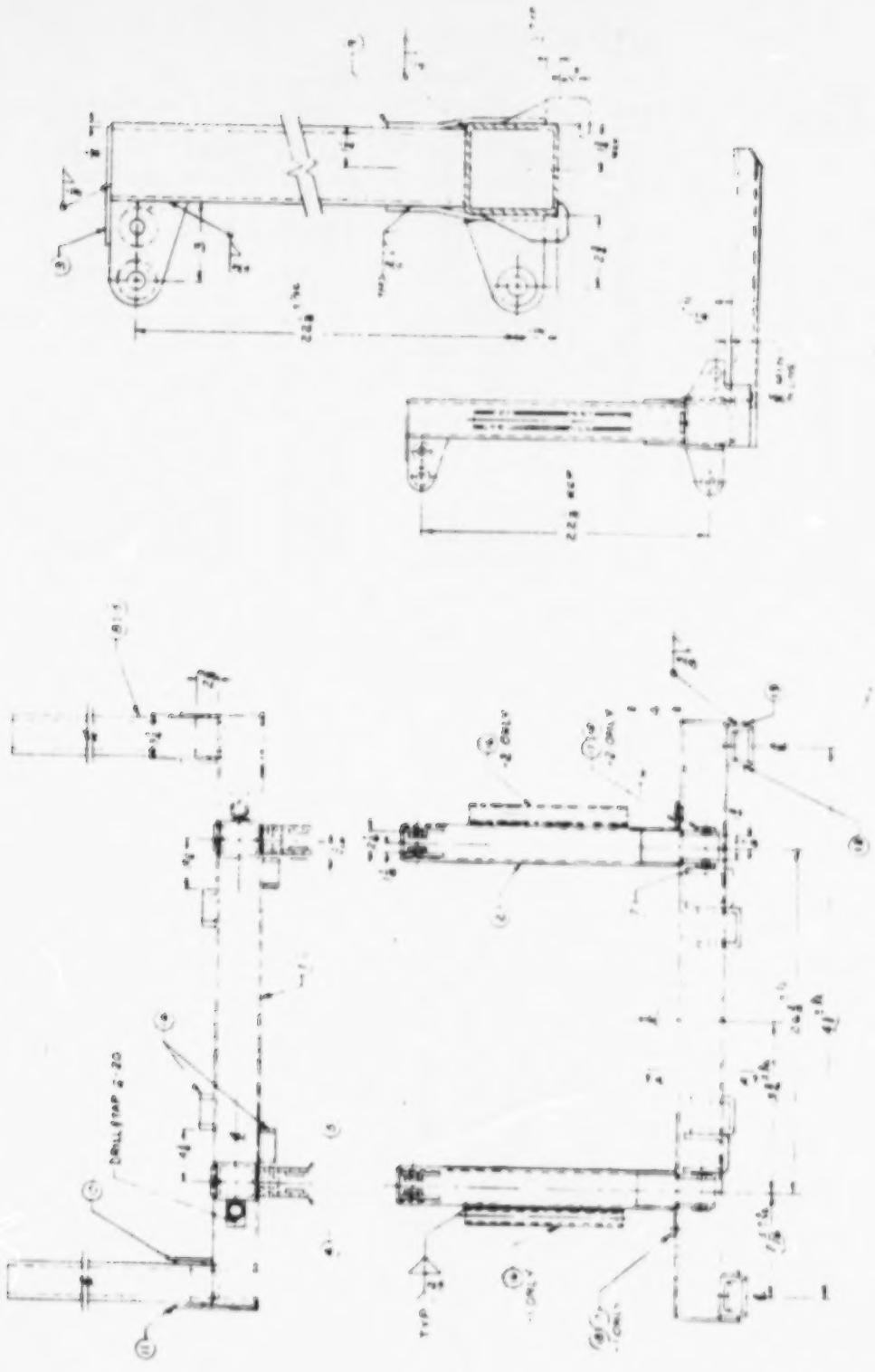


FIG 6-12
SHT 2 OF 2

TIE CABLE ASSEMBLY
LIST OF MATERIAL

GMS PART NO.
3670052-4

-4 Req'd	Item	Part No.	Mfg. Code	Description
2	1	B2808-52	16128	Hook
2	2	3670054	16128	Nut
1	3	3670051-4	37518	Cable Assembly

Figure 6-13

Sht 1 of 2

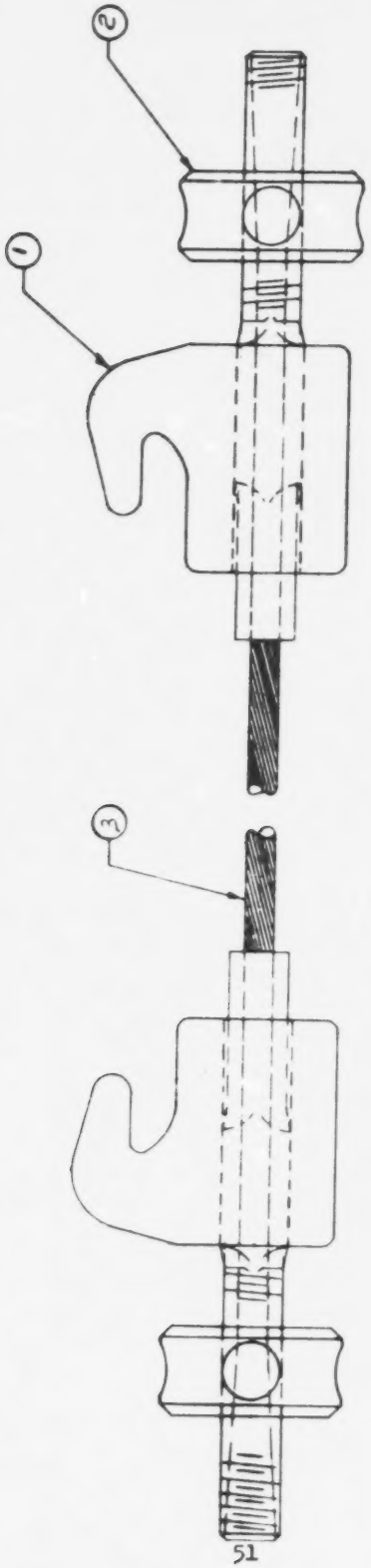


FIG 6-13
SHT 2 OF 2

GMS Part No.
6400030-501

HARNESS ASSEMBLY, REAR
LIST OF MATERIAL

501 Req'd	Item No.	Part No.	Mfg. Code	Description
7	1	8338560	00000	Connector, Waterproof
1	2	MS75021-1	96906	Receptacle Assy.
1	3	7722333	00000	Grommet
1	4	7722309	00000	Nut
1	5	7731428	00000	Cover Assy
30 ft	6	7720853	00000	Wire #14 Ga. Stranded
As Req'd	7	Comm.	96906	Tape, 1/2 inch, Polyvinyl
14	8	5939707	00000	Marker, Wire
1	9	MS35436-7	96906	Terminal Lug

Figure 6-14

Sheet 1 of 2

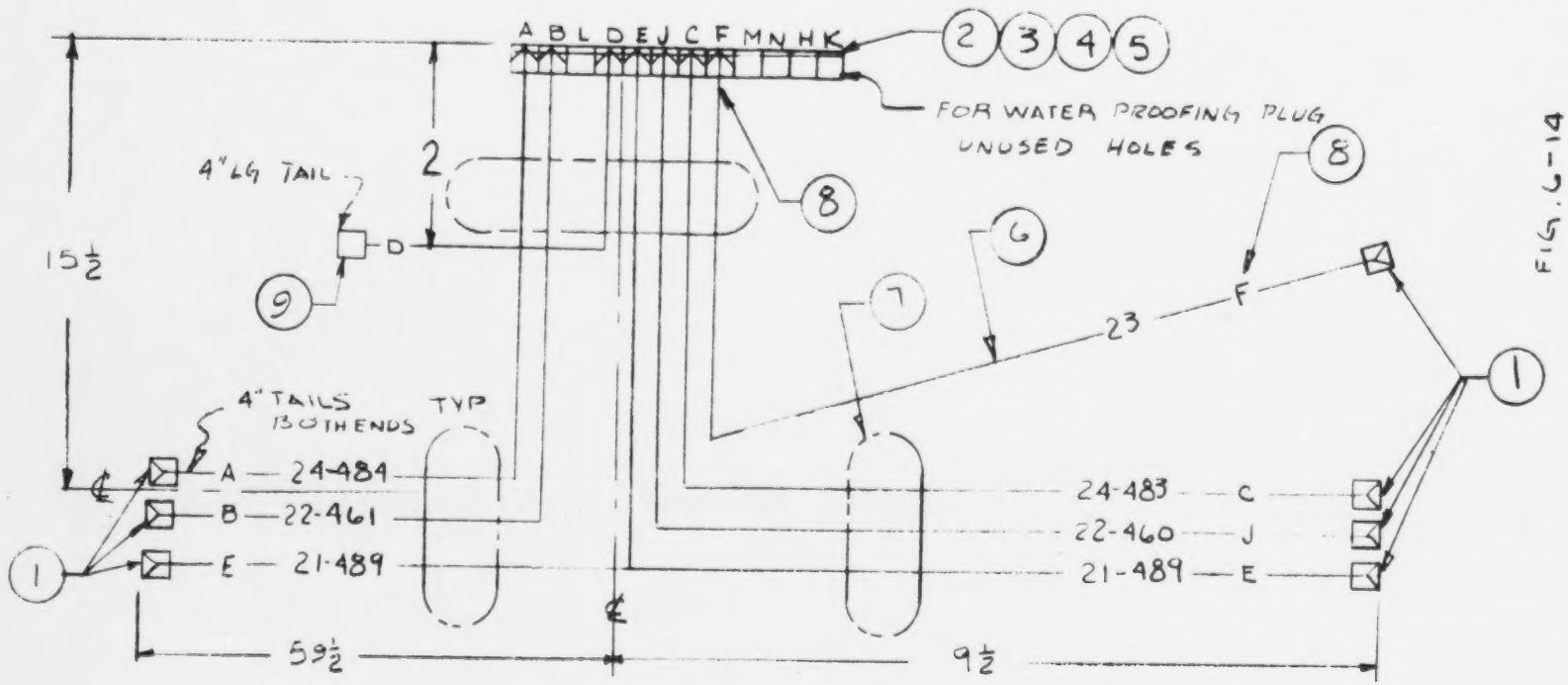


FIG. 6-14
SHT 2 OF 2

GMS Part No.
6967008-503

HARNESS ASSEMBLY, ELECTRICAL, INTERVEHICULAR
LIST OF MATERIAL

503 Req'd	Item	Part No.	Mfg. Code	Description
1	1	5967003-004	16128	Cable, Electric 8 Wire
1	2	None	16128	Identification Band
1	3	MS75020-1	96906	Plug
1	4	MS75020-2	96906	Plug

Figure 6-15 Sheet 1 of 2

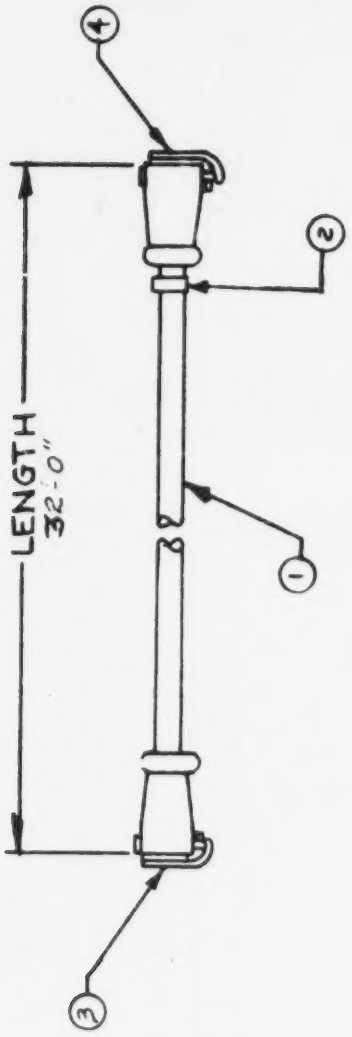


FIG 6-15
SHT 2 OF 2

PUMP, HAND HYDRAULIC — GMS PART NO.

LIST OF MATERIAL — 3520031

501 Req'd	Item	Part No.	Description
1	1	A1018.037	GASKET
1	2	A1026.026	NAME PLATE
4	3	A1028.074	PACKING
1	4	A8000.066	LOCK WASHER
1	5	A8000.212	PIPE BUSHING
1	6	A8001.057	SPRING PIN
2	7	A8008.049	RETAINING RING
1	8	A8009.037	GASKET
1	9	A8009.570	CAP
1	10	A8016.048	SCREW
6	11	A8017.048	CAP SCREW
1	12	A8018.006	PIPE PLUG
1	13	A8018.021	NUT
1	14	A8018.061	BEAM PIN
1	15	A8019.061	CROSS PIN
1	16	A8086.900	VENT ASSEMBLY
1	17	A8087.900	PUMP ASSEMBLY
2	18	AJ100.001	DRIVE SCREW
1	19	B159.167	GASKET
1	20	B8008.060	BEAM
1	21	C8007.098	BASE COVER
1	22	C8031.005	PUMP BASE
1	23	E14.16	BALL
1	24	H7.900	RELIEF VALVE
1	25	H613.183	SPRING
1	26	P60.11	NUT
1	27	P60.12	VALVE LEVER
1	28	P146.11B	WASHER
1	29	P146.75	PUMP PACKING
1	30	P307.18	SCREEN
1	31	P307.186	VALVE PLUG
1	32	P307.900	RELIEF VALVE
1	33	D15.167	GASKET
1	34	W12.16	BALL

Pump Hand Hydraulic
P/N - HP6001-51-05 FMC(20805)
FSN 4320-911-5679
Blackhawk Pump

Figure 6 - 16 — Sht 1 of 2

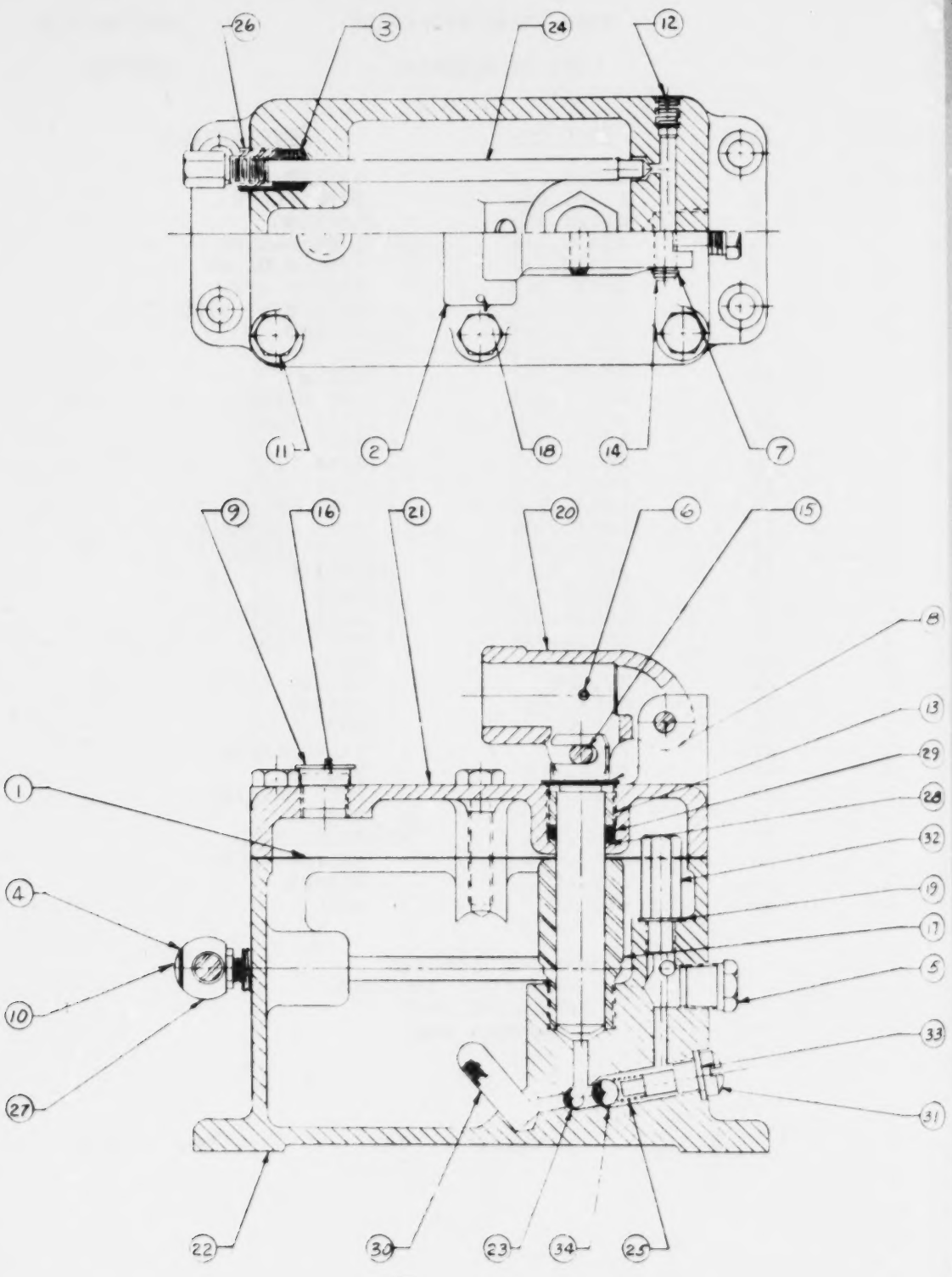


FIG 6-16
SHT. 2 OF 2

GMS Part No.
6967005-504

HOSE & COUPLING ASSY.
AIR BRAKE LINE
LIST OF MATERIAL

504 Req'd	Item No.	Part No.	Mfg. Code	Description
2	1	MS35746-3	96906	Coupling, Air Hose
	2			
	3			
	4			
1	5	6967004-004	16128	Hose Assembly
	6			
	7			
	8			
	9			
	10			
2	11	5967005-001	16128	End Fitting

Figure 6-17 Sheet 1 of 2

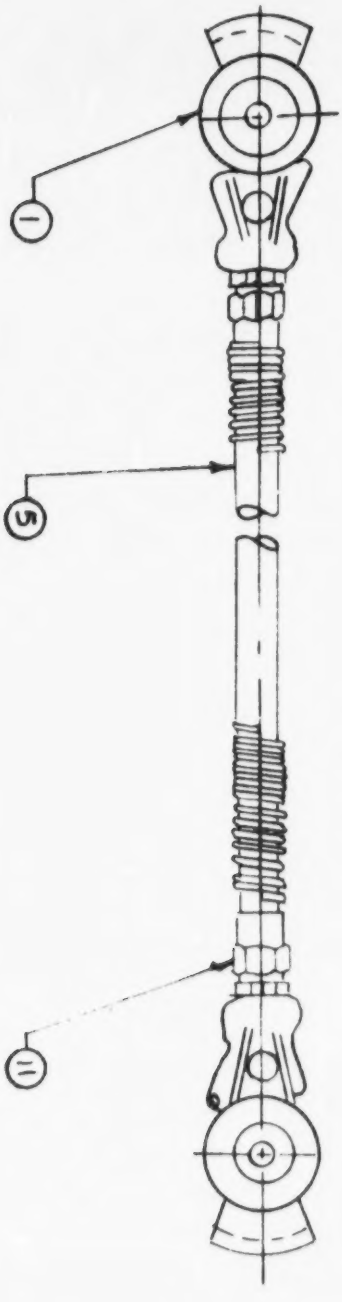


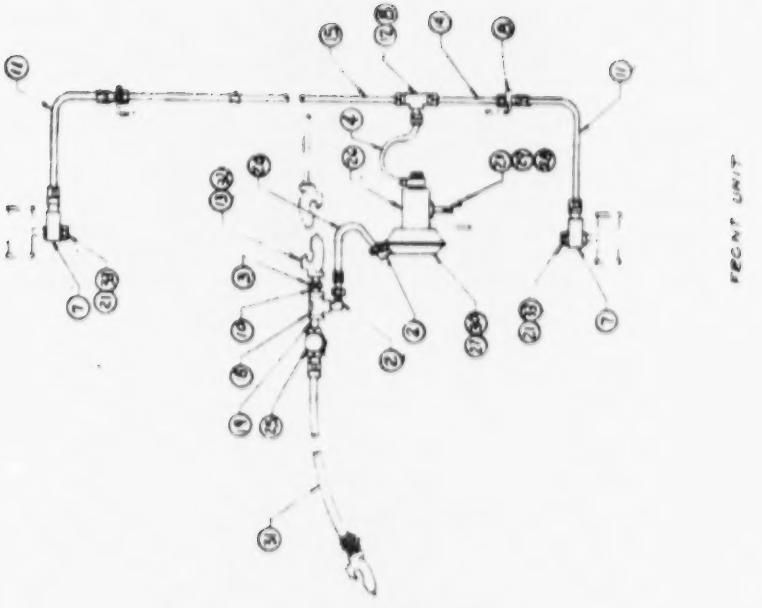
FIG 6-17
SHT 2 OF 2

G.M.S. PART NO.
7400023-501 Front
7400023-502 Rear

SERVICE BRAKE SYSTEM
AIR HYDRAULIC
LIST OF MATERIAL

502 Req'd	501 Req'd	Item No.	Part No.	Mfg. Code	Description
-	1	1	6967006-011	16128	Hose Assy., Air
2	4	2	B2808-73	04255	Elbow
1	1	3	B2808-74	63477	Connector
1	1	4	6967001-001	63477	Hose Assy, Hydraulic
1	1	5	B2808-95	63477	Gasket
1	1	6	B2808-96	63477	Gasket
2	2	7	B3010A143	63477	Connector
1	3	8	B2808-98	63577	Clip
1	1	9	B2808-99	63477	Bolt, Connector
1	2	10	B2808-151	72807	Adapter
2	2	11	6967007-001	16128	Hose Assembly
1	1	12	B2808-169	63477	Tee
1	1	13	B3155-133	06721	Coupling & Chain Assy.
-	1	14	B3373-16-1	16128	Hyd. Brake Line
-	1	15	B3373-16-4	16128	Hyd. Brake Line
1	-	16	B3100-19-1	16128	Hyd. Brake Line
1	-	17	540041-501	16128	Hyd. Brake Line
-	1	18	B2808-141	06721	Terminal
-	1	19	3425162	14959	Nipple, Close
1	1	20	6967006-012	16128	Hose Assy.
4	4	21	B3010A-142	63477	Gasket
		22	Deleted		
1	1	23	ORD502913	00000	Clamp, Hose
-	1	24	ORD7411022	00000	Cleaner Assy.
-	1	25	ORD7979296	00000	"U" Bolt, Air Cleaner
1	1	26	ORD8357980	00000	Master Cylinder
1	1	27	ORD8357981	00000	Chamber Assy.
1	1	28	ORD8365425	00000	Hose
1	1	29	ORD8365426	00000	Tube Assy.
1	1	30	ORD8365427	00000	Collar
-	1	31	ORD8741770	00000	Hose Assy.
1	1	32	MS35746-3	96906	Coupling, Air Line
2	2	33	B3010A141	63477	Bolt Connector

Figure 6-18 Sht 1 of 2



SHEET 1 OF 1

Section VII.

ILLUSTRATED PARTS BREAKDOWN

The following illustrations and parts breakdowns apply to the 7400050-501 Mobilizer, including Figure 7-1 thru 7-18.

GMS PART NO.
7400050-501

MOBILIZER ASSEMBLY COMPLETE
MODEL 4003
LIST OF MATERIAL

501 Req'd	Item No.	Part No.	Mfg. Code	Description
1	1	6400063-501	16128	Axles & Attaching Bracket Ass'y
2	2	3670052-4	16128	Tie Cable Ass'y

FIGURE 7-1 SHT 1 OF

GMS PART NO.
6400063-501

AXLES & ATTACHING BRACKET ASS'Y
LIST OF MATERIAL

501 Req'd	Item No.	Part No.	Mfg. Code	Description
1	1	7400052-501	16128	Axle Ass'y, Front
1	2	7400055-501	16128	Axle Ass'y, Rear
1	3	7400056-501	16128	Adapter Ass'y, Front
1	4	7400056-502	16128	Adapter Ass'y, Rear
4	5	4400010-001	96652	Pin Straight Headed 5/8 Dia.
4	6	5400029-501	16128	Lock Pin Ass'y
2	7	B2808-175	16128	Pump Handle Ass'y
8	8	4400011-001	96652	Pin Straight Headed 3/4 Dia.
	9	Deleted		
12	10	MS9048-141	96906	Pin, Spring Steel 5/32 x 1-1/4 Lg.

FIGURE 7-2, SHT. 1 OF 2

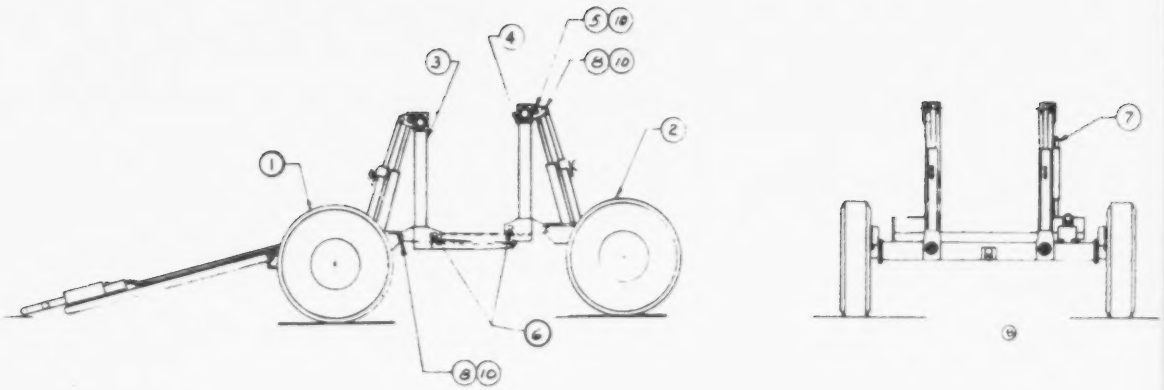


FIGURE 7-2, SHT. 2 OF 2

GMS PART NO.
7400052-501

AXLE ASS'Y, FRONT
LIST OF MATERIAL

501 Req'd	Item No.	Part No.	Mfg. Code	Description
2	1	6400016-501	16128	Tie Rod Ass'y
2	2	5400048-501	16128	King Pin
	3	Deleted		
2	4	6967003-504	16128	Hose Ass'y
2	5	B2808-69	45681	Connector
3	6	B2808-72	05766	Nut, Seal
2	7	B2808-168	06853	Clamp
	8	Deleted		
2	9	B3373-76	16128	Pin, Clevis
2	10	5400049-001	16128	Washer, Thrust
	11	Deleted		
4	12	B3375-57	16128	Pin, Clevis
1	13	7400051-501	16128	Axle Sub Ass'y, Front
1	14	5400023-001	16128	Tube, Hydraulic
1	15	5400022-001	16128	Tube, Hydraulic
2	16	6600057-503	16128	Chain Ass'y, Safety
2	17	5600103-001	81581	Link, Connecting
	18	Deleted		
2	19	B2808-54	45681	Elbow, Female
2	20	3425189	45681	Male Outlet, Tee
1	21	B2808-49	45681	Nipple, Pipe
5	22	B2808-68	45681	Ferrule
2	23	B3010A102	45681	Elbow, Street 45°
1	24	7600032-504	16128	Tow Bar Ass'y
1	25	B2808-67	45681	Cap, Ferulock, FTG.
	26	Deleted		
1	27	7400057-501	16128	Front Wheel & Brake Ass'y, R.H.
1	28	7400057-502	16128	Front Wheel & Brake Ass'y, L.H.
5	29	MS35223-81	96906	Screw, Mach. 1/4 Pan Hd. 1/4-20 x 3/4 Lg.
2	30	B3155-134	16128	Clip, Brake Line
5	31	MS35338-25	96906	Washer, Lock 1/4
6	32	AN960-1216	88044	Washer, Flat 3/4
6	33	MS9048-170	96906	Pin, Spring, Steel 3/16 x 1 Lg.
	34	Deleted		
	35	Deleted		
3	36	B2808-167	63477	Clamp, 1/2
2	37	MS90726-31	96906	Screw, Cap, Hex Hd, 5/16-24 x 5/8
2	38	MS35338-21	96906	Washer, Lock 5/16
4	39	5400046-001	16128	Gasket
2	40	AN945-5P	88044	Washer, Plain, Commer. 1/4
4	41	5400047-001	16128	Plate
8	42	MS21318-15	96906	Screw, Drive, Rd. Hd. #2 x 1/4 Lg.
	43	Deleted		
3	44	B2808-98	63477	Clip
2	45	6967007-001	97576	Hose Ass'y
1	46	B2808-169	63477	Tee
1	47	5400099-001	16128	Hyd. Brake Line
1	48	B3373-16-4	16128	Hyd. Brake Line
	49	Deleted		
	50	Deleted		

FIGURE 7-3, SHT. 1 OF 4

AXLE ASS'Y, FRONT
LIST OF MATERIAL
(Cont'd)

501 Req'd	Item No.	Part No.	Mfg. Code	Description
	51	Deleted		
	52	Deleted		
1	53	B3010A96	45681	Elbow, Street, 90° 1/4 CD-S
	54	Deleted		
1	55	6967007-003	97576	Hose Ass'y
1	56	3670027	79326	Pipe Connector 1/4 GG-S
1	57	3670020	79326	Coupler, Male EC205A4
1	58	3670021	79326	Cap, Dust 298-4
	59	Deleted		
	60	Deleted		
	61	Deleted		
1	62	B3010A138	84971	Hose Clamp
1	63	6400064-501	16128	Lever Ass'y, Parking
1	64	MS51967-1	96906	Nut, Plain, Hex, 1/4-20
	65	Deleted		
2	66	6400073-501	16128	Brace Ass'y, Upper
2	67	6400075-501	16128	Strut Ass'y, Lower
1	68	MS21333-73	96906	Clamp, TA T18S10
1	69	5400133-501	16128	Line Ass'y
2	70	6400066-501	16128	Cylinder, Hyd.

FIGURE 7-3, SHT. 20

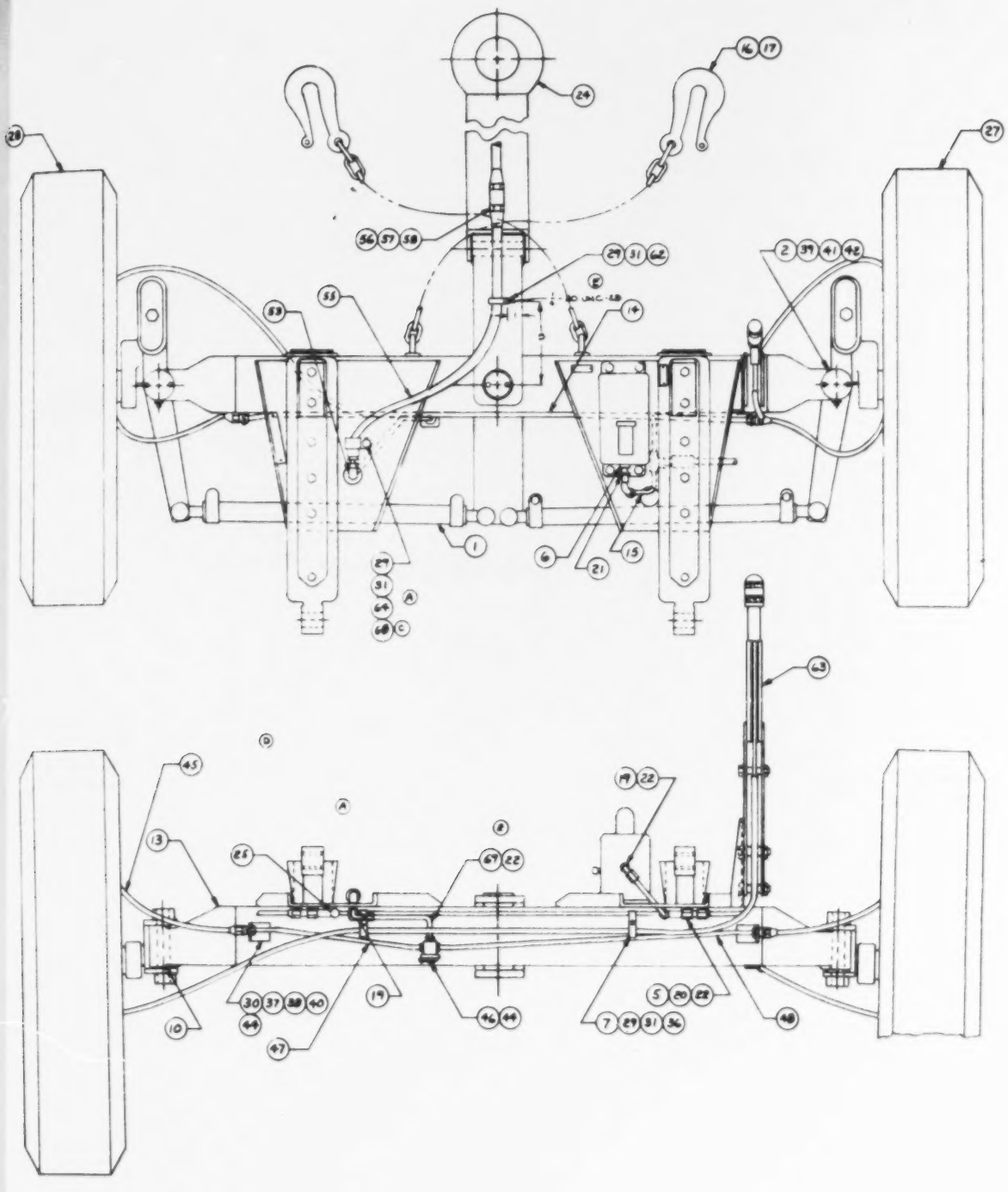
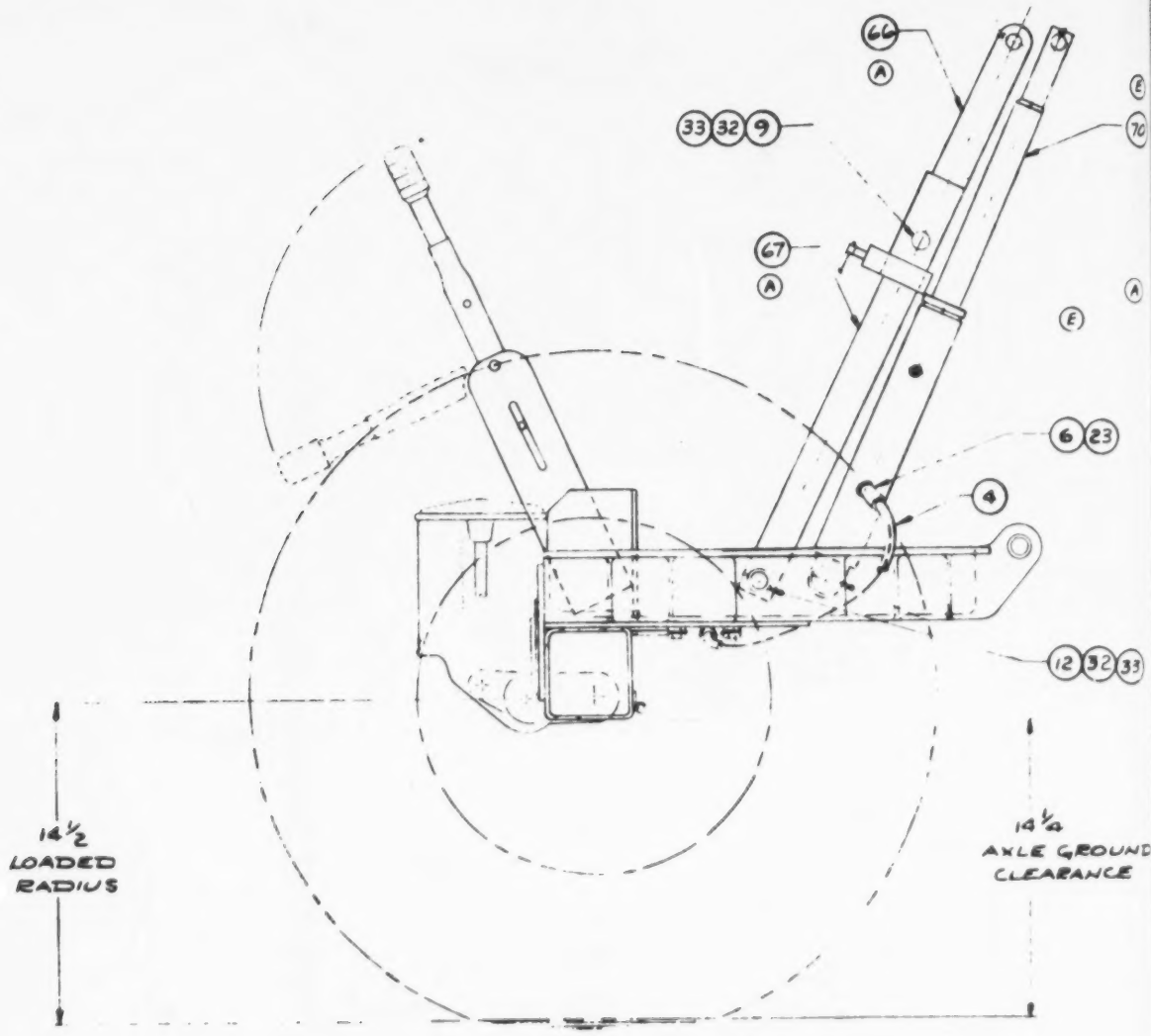


FIGURE 7-3, SHT. 3 OF 4



A-A

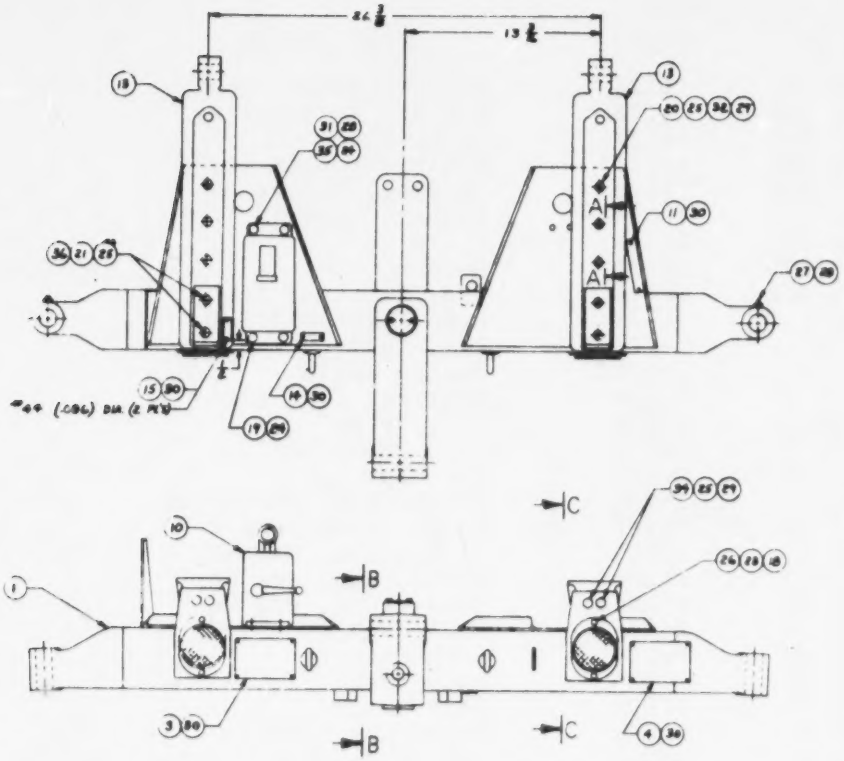
FIGURE 7-3, SHT. 4 OF 4

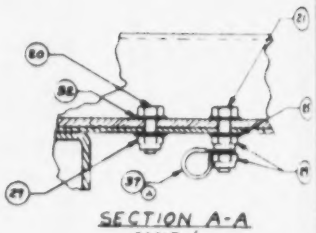
GMS PART NO.
7400051-501

AXLE SUB ASSEMBLY, FRONT
LIST OF MATERIAL

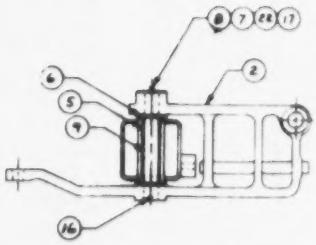
501 Req'd	Item No.	Part No.	Mfg. Code	Description
1	1	7400049-501	16128	Axle Weldment Front
1	2	6400026-501	16128	Arm Ass'y, Steering
1	3	5960427-001	16128	Nameplate
1	4	5960425-001	16128	Plate Identification
2	5	5600245-002	16128	Bushing, Sleeve
2	6	5600160-001	16128	Washer, Thrust
1	7	5600158-001	16128	Plate
1	8	5400045-001	16128	Gasket
1	9	5400044-001	16128	Pin, Steering Arm
1	10	3520031	16128	Pump, Hydraulic
1	11	B2715-19	16128	Tag, Instruction
2	12	B2530-60	16128	Backup Angle
2	13	B2530-22	16128	Casting, Lift Arm
1	14	B1592-44-1	16128	Tag, "Pump"
1	15	B1592-44-2	16128	Tag, "Release"
1	16	MS9048-178	96906	Pin, Spring
2	17	MS16997-43	96906	Screw, Cap, Socket Hd
4	18	MS35223-79	96906	Screw, Mach, Pan Hd
2	19	MS35292-36	96906	Screw, Cap, Hex Hd
4	20	MS35292-60	96906	Screw, Cap, Hex Hd
6	21	MS35298-64	96906	Screw, Cap, Hex Hd
2	22	MS35338-24	96906	Lock Washer
4	23	MS35338-25	96906	Lock Washer
4	24	MS35338-26	96906	Lock Washer
14	25	MS35338-27	96906	Lock Washer
2	26	MS35387-2	96906	Reflector, Amber
2	27	MS51020-85	96906	Set Screw, Cup Point
4	28	AN325-5	88044	Nut, Plain, Hex
12	29	AN325-6	88044	Nut, Plain, Hex
14	30	AN535-2-3	88044	Screw, Drive Rd Hd
2	31	AN960-516	88044	Washer, Flat
6	32	AN960-616	88044	Washer, Flat
	33	Deleted		
4	34	MS90726-62	96906	Screw, Cap, Hex Hd
2	35	MS90726-34	96906	Screw, Cap, Hex Hd
4	36	AN945-6P	88044	Washer, Plain, Commer
2	37	MS21337-75	96906	Clamp

FIGURE 7-4, SHT. 1 OF 2

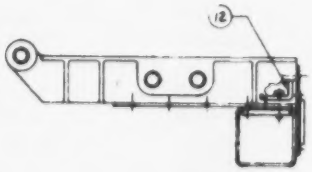




SECTION A-A
SCALE 1/2



SECTION B-B



SECTION C-C

FIGURE 7-4, SHT. 2 OF 2

GMS PART NO.
7400057-501 R. H. Side
7400057-502 L. H. Side

FRONT WHEEL & BRAKE ASSEMBLY
LIST OF MATERIAL

502 Req'd	501 Req'd	Item	Part No.	Mfg. Code	Description
1		1	7400073-501	16128	Suspension Ass'y, Front R.H.
	1	2	7400073-502	16128	Suspension Ass'y, Front L.H.
1	1	3	500128	00000	Seal
2	2	4	7371106	00000	Nut, Wheel Bearing, Lock
1	1	5	7371109	00000	Gasket
1	1	6	7696520	00000	Washer, Bearing Lock
1	1	7	7696521	00000	Washer, Nut Lock
1	1	8	7735821	00000	Cap, Grease
		9	Deleted		
12	12	10	MS35338-27	96906	Washer, Lock
6	6	11	MS90725-59	96906	Screw, Cap Hex Hd
6	6	12	MS90726-60	96906	Screw, Cap Hex Hd
	5	13	24568	33116	Bolt R. H.
5		14	24569	33116	Bolt L. H.
1	1	15	25649	33116	Hub
1	1	16	29502	33116	Drum
2	2	17	18520	60038	Cup
2	2	18	18590	60038	Cone
	5	19	24575 R.H.	33116	Wheel Nut
1		20	318457	14892	Brake Ass'y, L.H.
	1	21	318458	14892	Brkae Ass'y, R.H.
6	6	22	MS35690-622	96906	Nut, Plain
1	1	23	MS35388-9	96906	Tire
1	7	24	MS35392-8	96906	Tube
1	1	25	7387807	00000	Wheel Assembly
1	1	26	#6	95760	Caplug
5		27	24576	33116	Wheel Nut

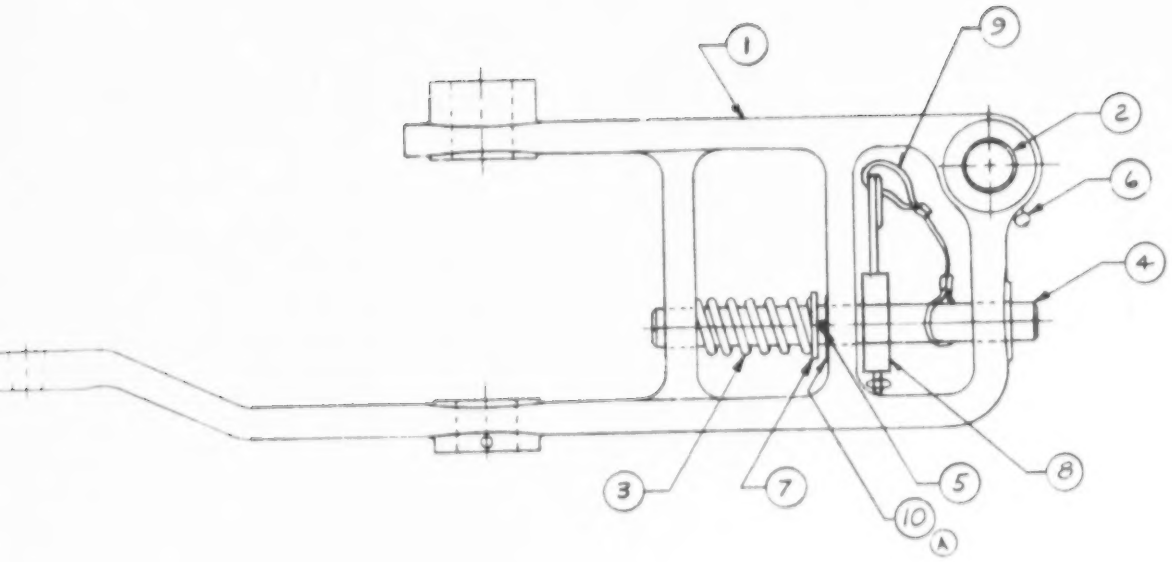
FIGURE 7-5, SHT. 1 OF 2

GMS PART NO.
6400026-501

ARM, STEERING, ASSEMBLY
LIST OF MATERIAL

501 Req'd	Item No.	Part No.	Mfg. Code	Description
1	1	7400027-001	16128	Arm, Steering
1	2	5600245-001	16128	Bushing, Sleeve
1	3	B3508-19	16128	Spring, Helical, Compr.
1	4	B3373-74	16128	Pin, Lock
1	5	MS9048-111	96906	Pin, Spring 1/8 x 1-3/8
1	6	MS15001-1	96906	Fitting, Lubrication
1	7	AN960-C1216	88044	Washer, Flat
	8	Deleted		
	9	Deleted		
1	10	AN960-1216L	88044	Washer 3/4

FIGURE 7-6, SHT. 1 OF 2



NOTE: ITEMS 8 & 9 ARE
OPTIONAL, FROM THIS [illegible]

FIGURE 7-6, LIMIT ROD

GMS PART NO.
740073-501 L. H. Side
740073-502 R. H. Side

SUSPENSION ASSEMBLY, FRONT
LIST OF MATERIAL

502 Req'd	501 Req'd	Item	Part No.	Mfg. Code	Description
	1	1	6400078-501	16128	Bracket Ass'y, Spindle
1		2	6400078-502	16128	Bracket Ass'y, Spindle
1	1	3	B1592-206	16128	Cap, Spring
2	2	4	B1592-207	16128	Spring, Compression
1	1	5	B1592-212	16128	Rod Ass'y, Connecting
1	1	6	B1592-214	16128	Retainer, Ass'y, Spring
2	2	7	B1592-224	16128	Plug, Compression
		8	Deleted		
		9	Deleted		
1	1	10	B2530-81	16128	Washer, Retainer
1	1	11	B2715-9	16128	Screw, Shoulder
1	1	12	B3417-51	16128	Bolt, Captivating
1	1	13	B3522-20	16128	Bolt, Retainer
2	2	14	MS9048-071	96906	Pin, Spring
		15	Deleted		
2	2	16	MS15001-3	96906	Fitting, Lubrication
		17	Deleted		
1	1	18	MS51019-65	96906	Set Screw, Socket
1	1	19	AN935-1016	88044	Washer, Lock
1	1	20	AN960-416	88044	Washer, Flat
2	2	21	AN960-516	88044	Washer, Flat
	1	22	7400029-501	16128	Hinge Ass'y, Front L.H.
1		23	7400029-502	16128	Hinge Ass'y, Front R.H.
1	1	24	MS90726-119	96906	Screw, Cap, Hex Hd
1	1	25	MS51968-13	96906	Nut, Plain
1	1	26	MS35691-1022	96906	Nut, Hex, Jam

FIGURE 7-7, SHT. 1 OF 2

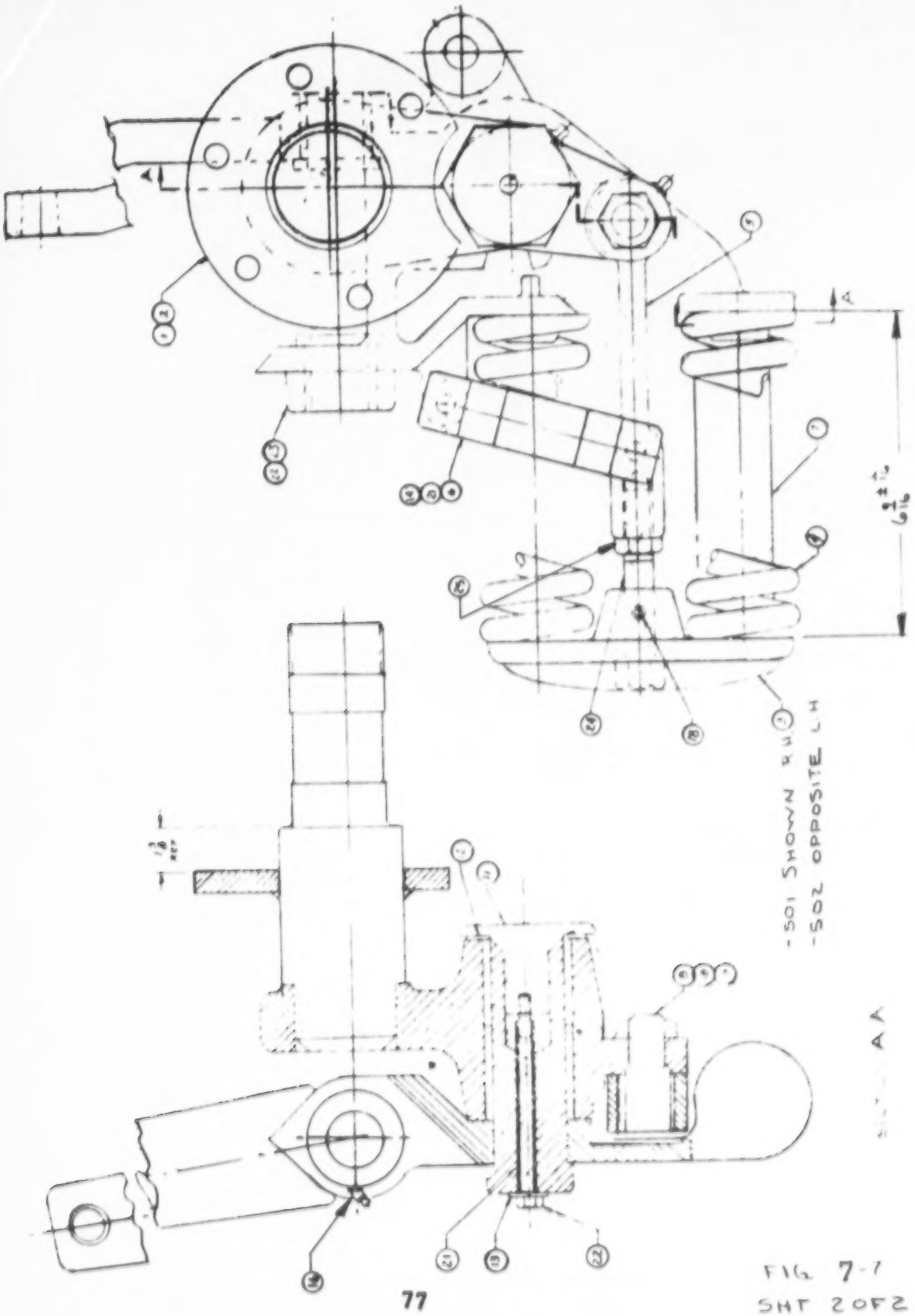


FIG 7-1
SHT 2 OF 2

TOWBAR ASSEMBLY
LIST OF MATERIAL

503 Req'd	Item No.	Part No.	Mfg. Code	Description
	1	Deleted		
	2	Deleted		
	3	Deleted		
1	4	3670019	79326	Coupling Quick Connect
1	5	3670022	79326	Plug Dust
2	6	B3010A138	84971	Tube Clamp
1	7	6967007-003	16128	Hose Assembly
	8	Deleted		
1	9	MS35223-45	96906	Screw Pan Hd.
2	10	MS35223-79	96906	Screw Pan Hd.
4	11	MS35338-29	96906	Washer Spring Lock
4	12	MS90726-113	96906	Screw Mach. Hex Hd
1	13	6600041-503	16128	Tube Ass'y, Draw Bar
1	14	5400098-501	16128	Pin Ass'y, Draw Bar
	15	Deleted		
1	16	622325	93072	Brake Ass'y

FIGURE 7-8, SHT. 1 OF 2

GMS PART NO.
7400055-501

AXLE ASSEMBLY, REAR
LIST OF MATERIAL

502 Req'd	Item	Part No..	Mfg. Code	Description
4	1	B3375-57	16128	Pin, Clevis
2	2	6967003-504	16128	Hose Assembly
2	3	B2808-69	45681	Connector
3	4	B2808-72	05766	Nut, Seal
	5	B2808-168	06853	Clamp 1/4
	6	Deleted		
1	7	7400054-501	16128	Axle Sub Ass'y Rear
	8	Deleted		
	9	Deleted		
	10	Deleted		
2	11	B3373-76	16128	Pin, Clevis
1	12	5400039-001	16128	Tube, Hydraulic
1	13	6400021-001	16128	Tube, Hydraulic
2	14	3425189	45681	Male Outlet, Tee
1	15	3425166	45681	Male Connector
4	16	B2808-68	45681	Ferrule
1	17	B3010A102	45681	Street, Elbow 45°
1	18	B2808-67	45681	Cap, Ferulock Fitting
6	19	MS20365-1216	96906	Nut, Self-locking 3/4-16
2	20	MS35223-79	96906	Screw, Mach. Pan Hd 1/4-20 x 2
6	21	MS35292-187	96906	Screw, Cap, Hex Hd 3/4-16 x 2
2	22	MS35338-25	96906	Washer, Lock 1/4
2	23	MS35239-143	96906	Screw, Mach, Flat Hd 1/2-13 x 1-1/2
6	24	AN960-1216	88044	Washer, Flat 3/4
6	25	MS9048-170	96906	Pin, Spring Steel 3/16 x 1
	26	Deleted		
1	27	7400058-501	16128	Wheel Ass'y, R.H.
1	28	7400058-502	16128	Wheel Ass'y, L.H.
	29	Deleted		
	30	Deleted		
2	31	3425187-7	16128	Nut, Self Locking 1/2-13
2	32	6400073-501	16128	Brace Ass'y, Upper
2	33	6400075-501	16128	Strut Ass'y, Lower
2	34	6400066-501	16128	Cylinder, Ass'y

FIGURE 7-9, SHT 1 OF 3

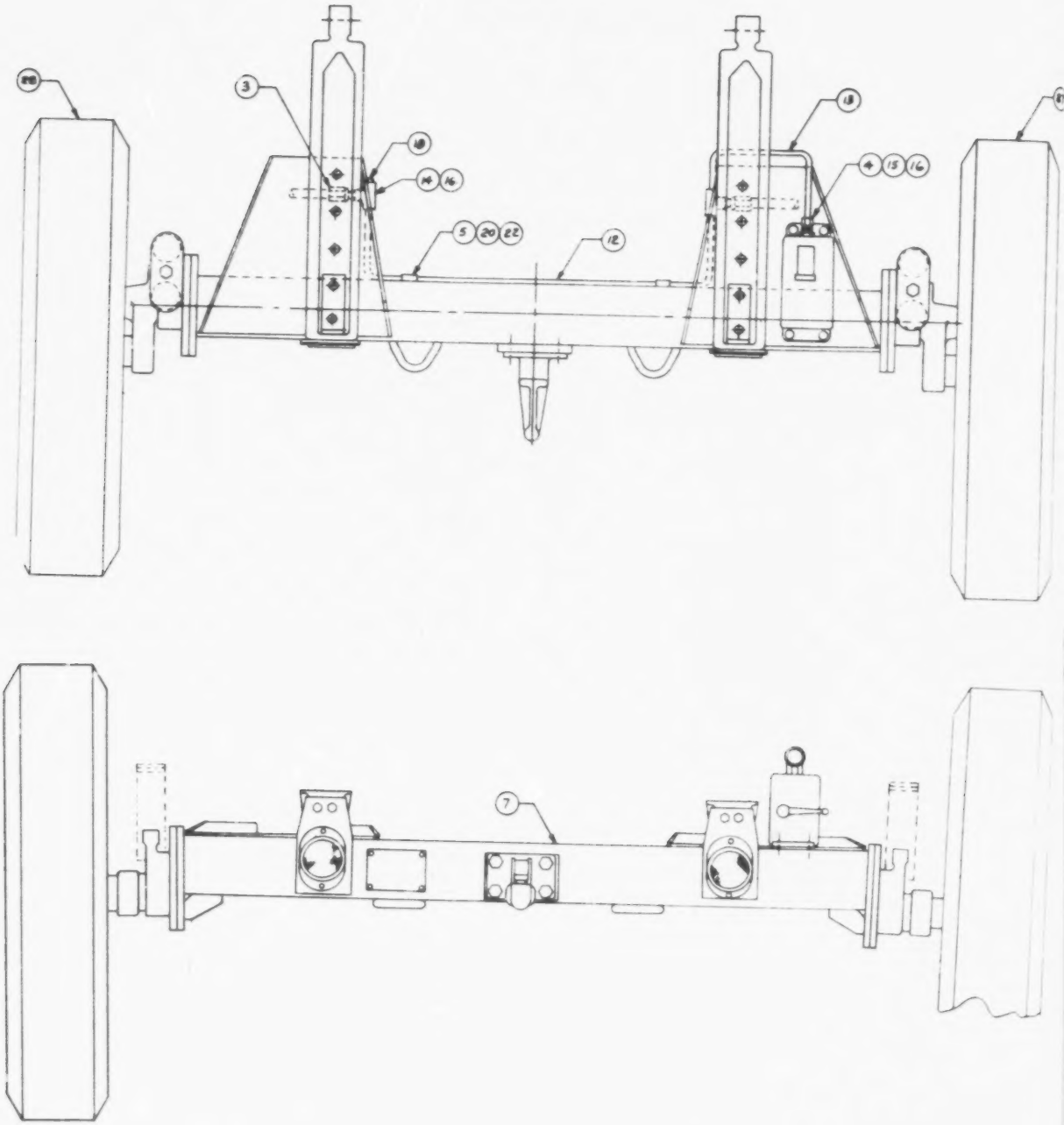
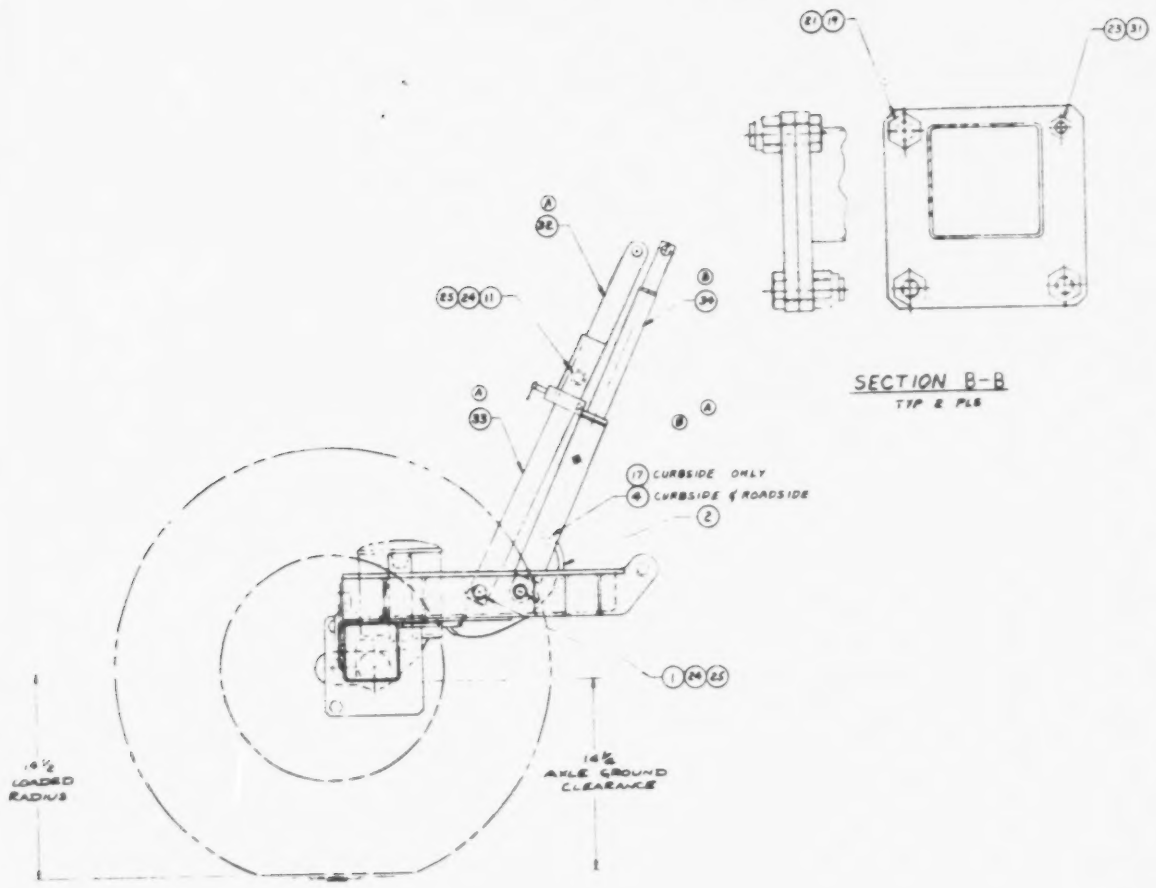


FIGURE 7-9, SAT. 2 OF 3



SECTION B-B
TYP 2 PLS

A-A

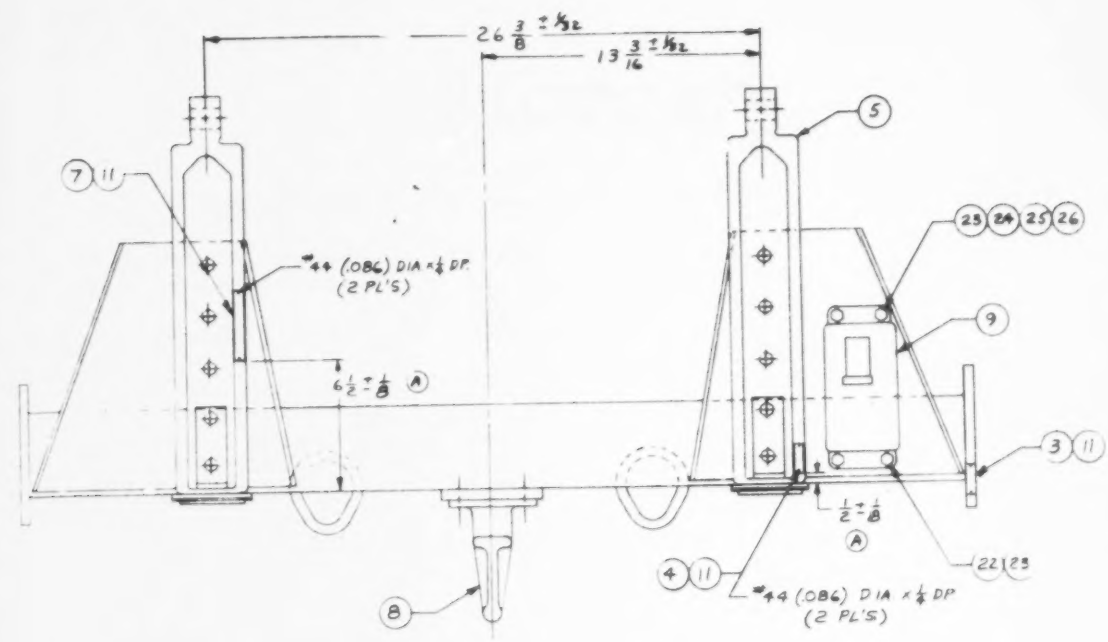
FIGURE 7-9, SHT. 3 OF 3

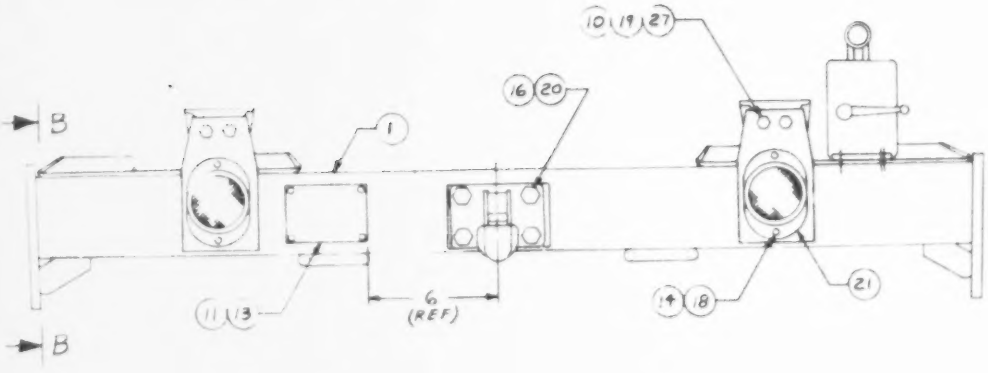
GMS PART NO.
7400054-501

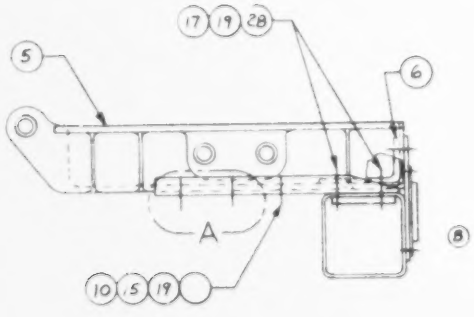
AXLE SUB ASSEMBLY, REAR
LIST OF MATERIAL

502 Req'd	Item	Part No.	Mfg. Code	Description
1	1	7400053-501	16128	Axle Weldment
	2	Deleted		
1	3	B1592-44-1	16128	Tag "Pump"
1	4	B1592-44-2	16128	Tag "Release"
2	5	B2530-22	16128	Lift Arm Assembly
2	6	B2530-60	16128	Back Up Angle
1	7	B2715-19	16128	Tag, Instruction
1	8	B3100-22	15397	Pintle Hook Assembly
1	9	3520031	20805	Pump, Hydraulic
12	10	AN325-6	88044	Nut, Plain Hex 3/8-24
10	11	AN535-2-3	88044	Screw Drive, Rd Hd #2 x 3/16
6	12	AN960-61ᴗ	88044	Washer, Flat 3/8
1	13	5960426-001	16128	Plate, Identification
4	14	MS35223-79	96906	Screw, Mach, Pan Hd 1/4-20 x 1/2
4	15	MS35292-60	96906	Screw, Cap, Hex Hd 3/8-24 x 1
4	16	MS35292-113	96906	Screw, Cap, Hex Hd 1/2-20 x 1-1/2
6	17	MS35298-64	96906	Screw, Cap, Hex Hd 3/8-24 x 1-1/2
4	18	MS35338-25	96906	Washer, Lock 1/4
14	19	MS35338-27	96906	Washer, Lock 3/8
4	20	MS35338-29	96906	Washer, Lock 1/2
2	21	MS35387-1	96906	Reflector (Red)
2	22	MS35292-36	96906	Screw, Cap, Hex Hd 5/16-24 x 1-1/
4	23	MS35338-26	96906	Washer, Lock 5/16
2	24	AN960-516	88044	Washer, Flat 5/16
2	25	AN325-5	88044	Nut, Plain, Hex 5/16-24
2	26	MS90726-34	96906	Screw, Cap, Hex Hd 5/16-24 x 1
4	27	MS90726-62	96906	Screw, Cap, Hex Hd 3/8-24 x 1-1/4
4	28	AN945-6P	88044	Washer, Plain, Commer. 3/8
2	29	MS21333-75	84971	Clamp (TA614-5-12)

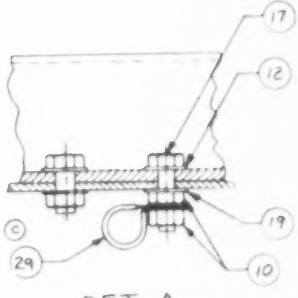
FIGURE 7-10. SHT. 1 OF 2







B-B



DET. A

FIGURE 7-10, SHT. 2 OF 2

GMS PART NO.
7400058-501 R.H. Side
7400058-502 L.H. Side

WHEEL ASSEMBLY, REAR
LIST OF MATERIAL

502 Req'd	501 Req'd	Item	Part No.	Mfg. Code	Description
1		1	7400059-501	16128	Suspension Ass'y, L.H.
	1	2	7400059-502	16128	Suspension Ass'y, R.H.
1	1	3	500128	00000	Seal
2	2	4	7371106	00000	Nut, Wheel Bearing Lock
1	1	5	7371109	00000	Gasket
1	1	6	7696520	00000	Washer, Bearing Lock
1	1	7	7696521	00000	Washer, Nut Lock
1	1	8	7735821	00000	Cap, Grease
6	6	9	MS35338-27	96906	Washer, Lock 3/8
6	6	10	MS90725-59	96906	Screw, Cap Hex Hd 3/8-16 x 7
	5	11	21262-R	33116	Bolt, R.H.
5		12	21263-L	33116	Bolt, L.H.
1	1	13	25649	33116	Hub
2	2	14	18520	60038	Cup
2	2	15	18590	60038	Cone
	5	16	24575 R.H.	33116	Wheel Nut
1	1	17	MS35388-9	96906	Tire 700 x 16- 6 ply, C2 MIL
1	1	18	MS35392-8	96906	Tube
1	1	19	7387807	00000	Wheel Ass'y
5		20	24576 L.H.	33116	Wheel Nut

FIGURE 7-11, SHT. 1 OF 2

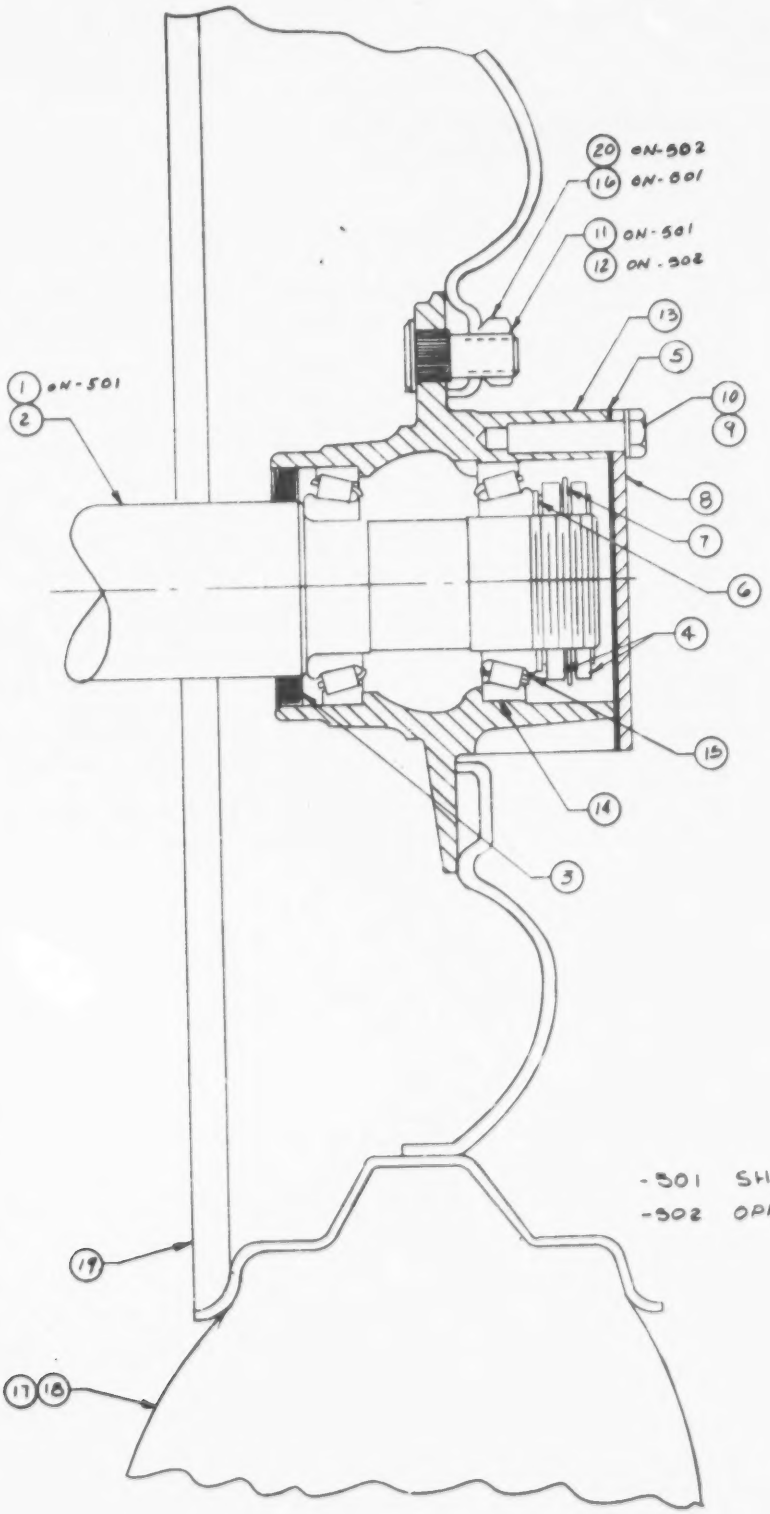


FIGURE 7-11, SHT. 2 OF 2

GMS PART NO.
7400059-501 L.H.
7400059-502 R.H.

SUSPENSION ASSEMBLY, REAR
LIST OF MATERIAL

502 Req'd	501 Req'd	Item	Part No.	Mfg. Code	Description
	1	1	B3375-55-1	16128	Brkt. Ass'y, Spindle L.H.
1		2	B3375-55-2	16128	Brkt. Ass'y, Spindle R.H.
1	1	3	B1592-206	16128	Cap, Spring
2	2	4	B1592-207	16128	Spring, Compression
1	1	5	B1592-212	16128	Rod Ass'y, Connecting
1	1	6	B1592-214	16128	Retainer Ass'y, Spring
2	2	7	B1592-224	16128	Compression - Plug
1	1	8	B2530-81	16128	Washer, Retainer
1	1	9	B2715-9	16128	Screw, Shoulder
1	1	10	B3417-51	16128	Bolt, Captivating 1/4-28 x 3-3/4 L.H.
1	1	11	B3522-20	16128	Bolt, Retainer
	1	12	B2200-32-1	16128	Hinge Ass'y, L.H.
1		13	B2200-32-2	16128	Hinge Ass'y, R.H.
1	1	14	MS51019-65	96906	Setscrew, Socket 1/4-20 x 3/8
1	1	15	MS90726-119	96906	Screw, Cap, Hex Hd 1/2-20 x 3
2	2	16	AN960-516	88044	Washer, Flat 5/16
2	2	17	MS9048-071	96906	Pin, Spring 3/32 x 5/8
1	1	18	MS35691-1022	96906	Nut, Hex, Jam 5/8-18
1	1	19	MS35338-31	96906	Washer, Lock 5/8
1	1	20	MS51968-13	96906	Nut, Plain, Hex 1/2-20
1	1	21	AN960-416	88044	Washer, Flat 1/4

FIGURE 7-12, SHT. 1 OF 2

GMS PART NO:
7400056-501 (Front)
7400056-502 (Rear)

ADAPTER ASSEMBLY
LIST OF MATERIAL

502 Req'd	501 Req'd	Item	Part No.	Mfg. Code	Description
1	1	1	4400007-001	16128	Tube, Torsion
2	2	2	4400006-001	16128	Tube, Pylon
2	2	3	4400005-001	16128	Plt. Pylon Cap
2	2	4	5400011-001	16128	Brkt. Upper
2	2	5	5400011-002	16128	Brkt. Upper
2	2	6	5400010-001	16128	Brkt. Lower
2	2	7	5400010-002	16128	Brkt. Lower
	2	8	5400035-501	16128	Lift Channel Assembly
4	4	9	5400038-001	16128	Strap Pylon
2	2	10	5400030-001	16128	Side Plate
2	2	11	5400031-001	16128	End Plate
2	2	12	4400004-001	16128	Bar
2	2	13	4400004-002	16128	Bar
4	4	14	5967007-001	16128	Brkt. Tension Cable
2		15	5400032-501	16128	Lift Channel Assembly
1	1	16	5400036-501	16128	Bracket Assembly
1	1	17	4400003-001	16128	Bumper Rubber
5	5	18	MS35223-79	96906	Screw Pan Head 1/4-20 x 1/2
2		19	MS35387-1	96906	Reflector, Red
	2	20	MS35387-2	96906	Reflector, Amber
2	2	21	5400109-001	16128	Plate
4	4	22	MS35338-25	96906	Washer, Lock 1/4

FIGURE 7-13, SHT. 1 OF 2

GMS PART NO.
3670052-4

TIE CABLE ASSEMBLY
LIST OF MATERIAL

-4 Req'd	Item	Part No.	Mfg. Code	Description
1	1 & 2	36700051-4	37518	Cable Ass'y
2	3	B2808-52	16128	Hook
2	4	3670054	16128	Nut

FIGURE 7-14, SHT. 1 OF 2

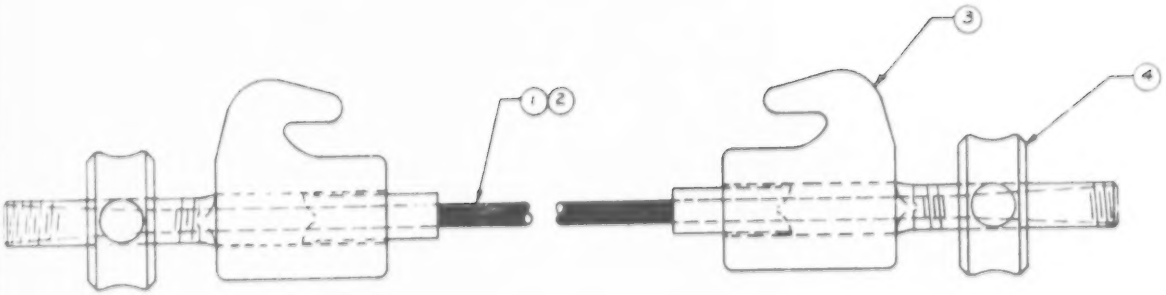


FIGURE 7-14, SHT. 2 OF 2

PUMP, HAND HYDRAULIC — GMS PART NO.

LIST OF MATERIAL — 3520031

501 Req'd	Item	Part No.	Description
1	1	A1018.037	GASKET
1	2	A1026.026	NAME PLATE
4	3	A1028.074	PACKING
1	4	A8000.066	LOCK WASHER
1	5	A8000.212	PIPE BUSHING
1	6	A8001.057	SPRING PIN
2	7	A8008.049	RETAINING RING
1	8	A8009.037	GASKET
1	9	A8009.570	CAP
1	10	A8016.048	SCREW
6	11	A8017.048	CAP SCREW
1	12	A8018.006	PIPE PLUG
1	13	A8018.021	NUT
1	14	A8018.061	BEAM PIN
1	15	A8019.061	CROSS PIN
1	16	A8086.900	VENT ASSEMBLY
1	17	A8087.900	PUMP ASSEMBLY
2	18	AJ100.001	DRIVE SCREW
1	19	B159.167	GASKET
1	20	B8008.060	BEAM
1	21	C8007.098	BASE COVER
1	22	C8031.005	PUMP BASE
1	23	E14.16	BALL
1	24	H7.900	RELIEF VALVE
1	25	H613.183	SPRING
1	26	P60.11	NUT
1	27	P60.12	VALVE LEVER
1	28	P146.11B	WASHER
1	29	P146.75	PUMP PACKING
1	30	P307.18	SCREEN
1	31	P307.186	VALVE PLUG
1	32	P307.900	RELIEF VALVE
1	33	D15.167	GASKET
1	34	W12.16	BALL

Pump Hand Hydraulic
P/N - HP6001-51-05 FMC(20805)
FSN 4320-911-5679
Blackhawk Pump

Figure 7 - 15 — Sht 1 of 2

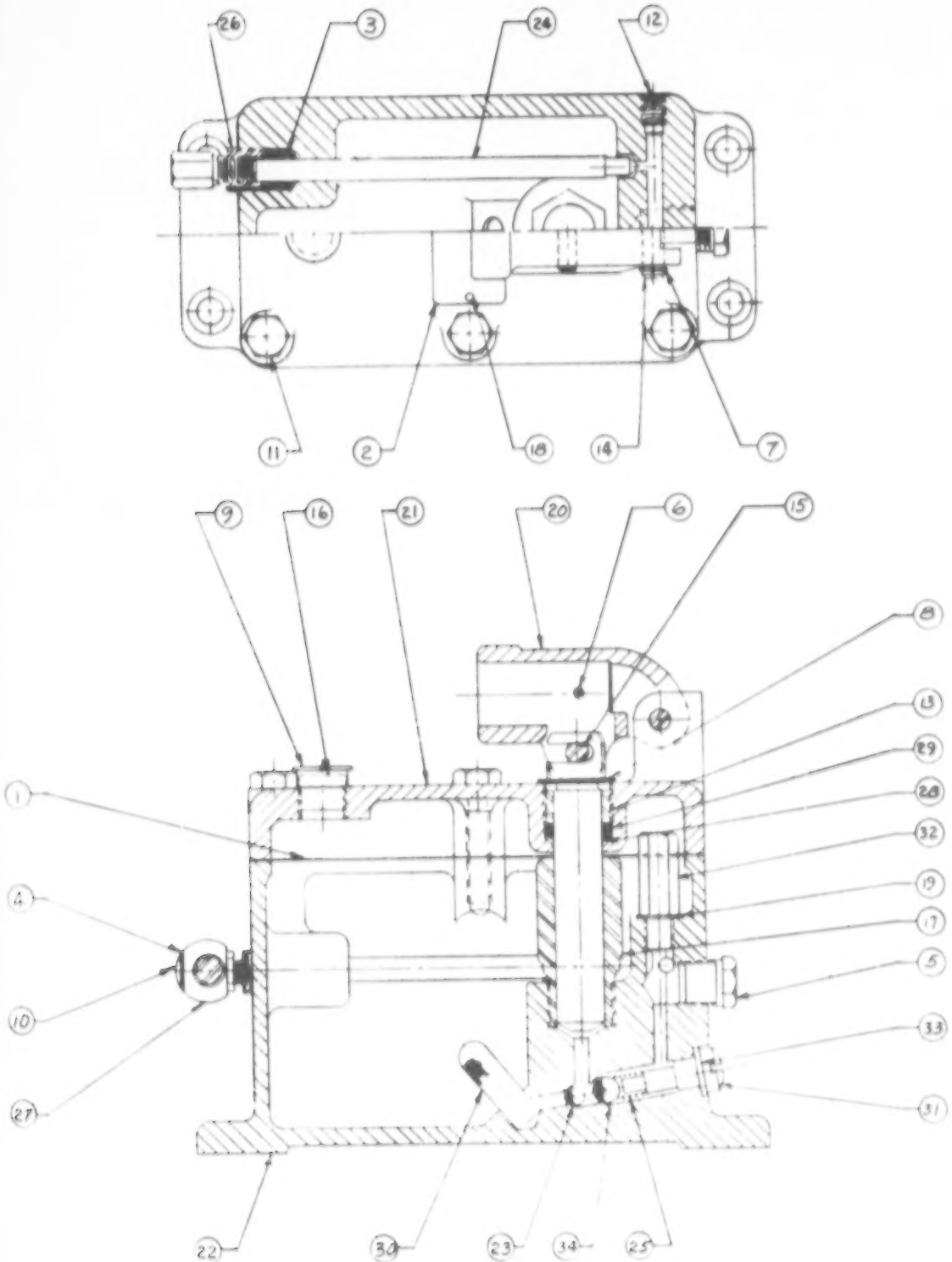


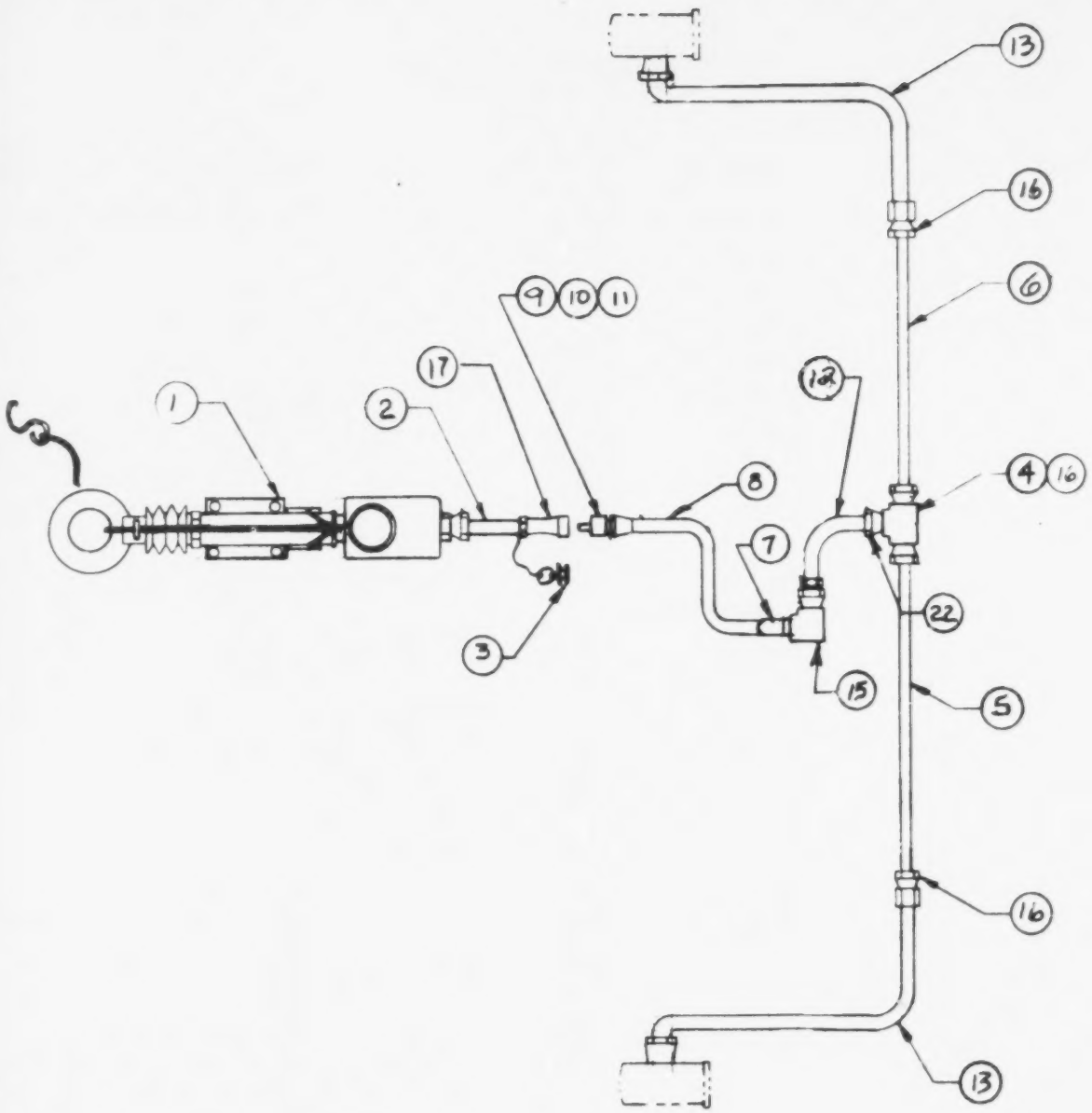
FIG. 7-15
SHT. 2 OF 2

SERVICE BRAKE SYSTEM
Diagram

List of Material

Req'd	Item	Part No.	Mfg. Code	Description
1	1	622325	93072	Brake Ass'y, Inertia Actuate W/Emergency Breakaway Featur
1	2	6967007-003	16128	Hose Ass'y
1	3	3670022	79326	Plug, Dust
1	4	B2808-169	63577	Tee
1	5	5400099-001	16128	Hyd. Brake Line
1	6	B3373-16-4	16128	Hyd. Brake Line
1	7	B3010A96	45681	Elbow, Street 90°
1	8	6967007-003	16128	Hose Ass'y
1	9	3670027	45681	Pipe Connector
1	10	3670020	79326	Coupler Male
1	11	3670021	79326	Cap, Dust
1	12	5400133-501	16128	Line Ass'y
2	13	6967007-001	16128	Hose Ass'y
5	14	B2808-68	45681	Ferrule
2	15	B2808-54	45681	Elbow, Female
3	16	B2808-98	63477	Clip
1	17	3670019	79326	Coupling, Quick Link

Figure 7-16, Sheet 1 of 2



95 FIGURE 7-16, SHT. 2 OF 2

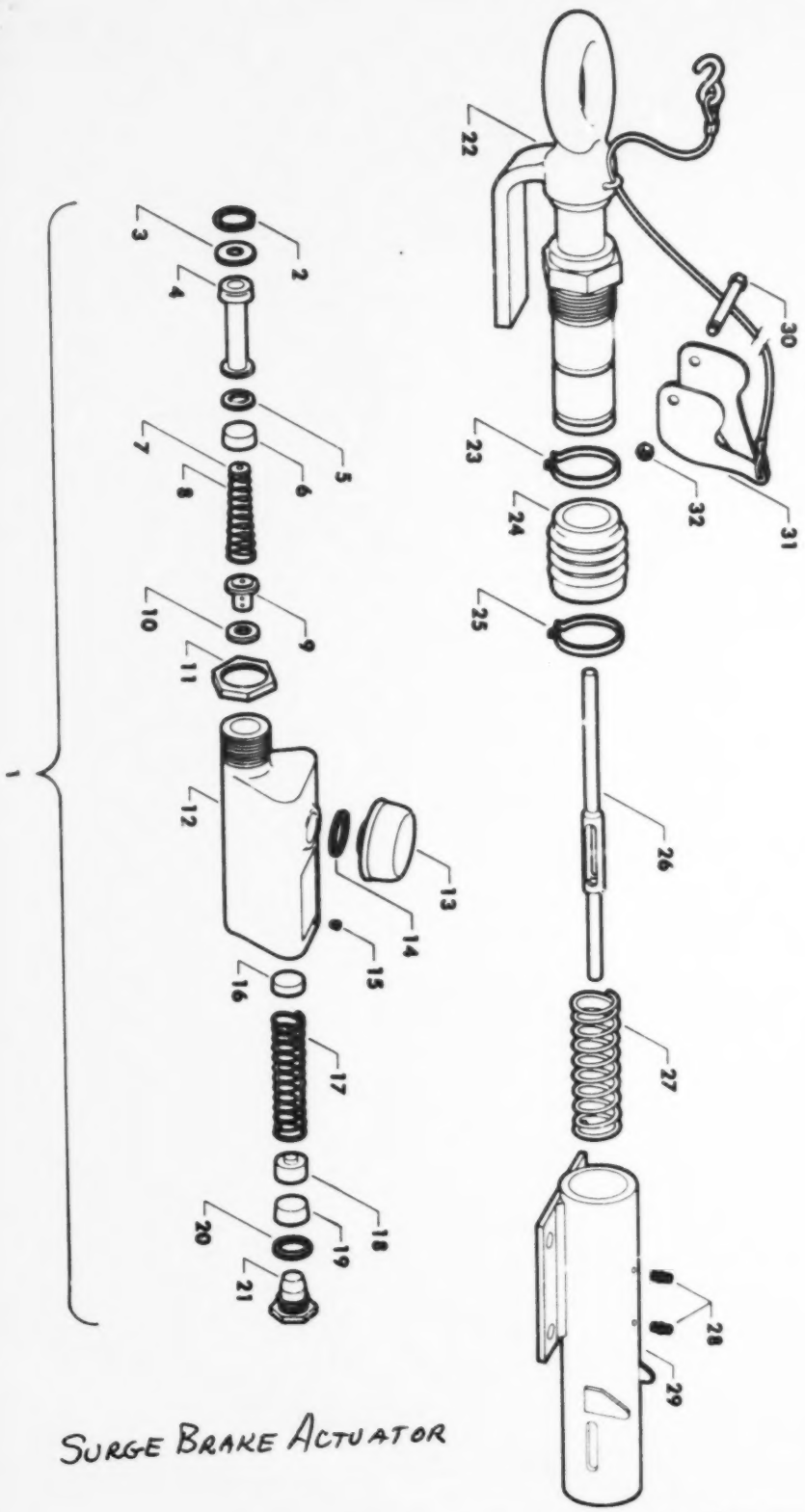
READEX FICHE best copy available

PART NO. 622325
MFG. CODE 93072

SURGE BRAKE ACTUATOR
LIST OF MATERIAL

Req'd	Item No.	Part No.	Mfg. Code	Description
1	1	580376-8	93072	Master Cylinder Ass'y(Less Filler Cap & Gasket)
1	2	57413	93072	Lock Ring
1	3	57412	93072	Stop Plate
1	4	57684	93072	Piston Ass'y
1	5	580375	93072	Cup Protector
1	6	580260	93072	Primary Cup
1	7	580864	93072	Return Spring Cap
1	8	57802	93072	Piston Return Spring
1	9	580259	93072	Valve Ass'y
1	10	580304	93072	Valve Seat
1	11	57504	93072	Lock Nut
1	12	57812-1	93072	Master Cylinder Housing Only
1	13	622151	93072	Filler Cap
1	14	580342	93072	Filler Cap Gasket
1	15	580255-1	93072	Bleeder Ass'y
	16	Deleted		
1	17	622089	93072	Spring, Plain
1	18	580382	93072	Spring Seat
1	19	580334	93072	Cup
1	20	57623	93072	Gasket
1	21	57683	93072	Retainer
1	22	622060-2	93072	Lunette Ass'y Less Cable
1	23	580546	93072	Clamp, Front
1	24	621001	93072	Boot
1	25	580546	93072	Clamp, Rear
1	26	622161	93072	Push Rod
1	27	622214	93072	Spring
2	28	52133-9	93072	Grease Fitting Only
1	29	622109	93072	Sleeve & Mounting Ass'y, Complete
1	30	622175	93072	Bolt
1	31	622162	93072	Breakaway Lever, Less Cable
--	--	--	--	--
		622177	93072	Master Cylinder Repair Kit (Consisting of items 2, 4, 5, 6, 7, 8, 9, 10, 19 & 20.)

Figure 7-17, Sheet 1 of



SURGE BRAKE ACTUATOR

FIGURE 7-17. SHEET 2 OF 2

HYDRAULIC CYLINDER
SINGLE ACTING
LIST OF MATERIAL

501 Req'd	Item	Part No.	Mfg. Code	Description
1	1	6400065-501	16128	Tube Ass'y.
1	2	5400111-001	16128	Rod
1	3	5400117-001	16128	Guide
1	4	5400113-001	16128	Cap
1	5	5400116-001	16128	Stop
1	6	5400120-001	16128	Chevron Packing
	7	Deleted		
1	8	504264	80201	Wiper
1	9	B3373-31	16128	Vent Air
1	10	MS16625-150	96906	Ring, Retaining

Figure 7-18, Sheet 1 of 2

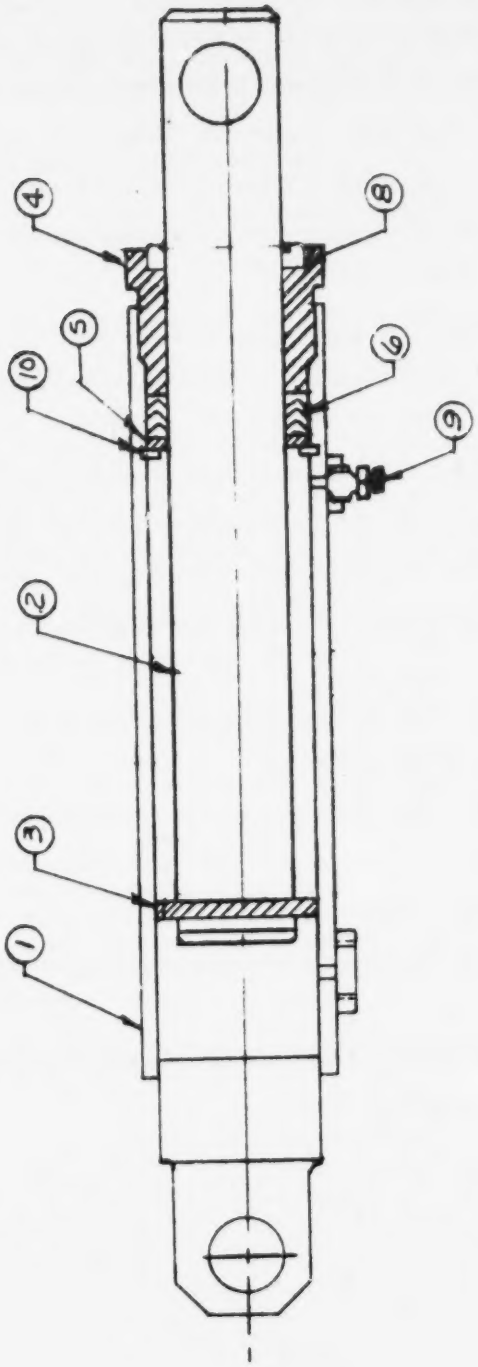


FIGURE 7-18, SHT. 2 OF 2

APPENDIX A

MAINTENANCE ALLOCATION CHART

1. Purpose

The purpose of the maintenance allocation chart is to provide all activities with maintenance functions to be performed at each level of maintenance.

2. Definitions

a. Column 1, Group number. Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies, and modules with the next higher assembly.

b. Column 2, Functional group. Column 2 lists the noun names of components, assemblies, subassemblies, and modules on which maintenance is authorized.

c. Column 3, Maintenance functions. Maintenance functions will be limited to and defined as follows:

(1) Inspect. To determine serviceability of an item by comparing its physical, mechanical, and electrical characteristics with established standards.

(2) Test. To verify serviceability and to detect electrical or mechanical failure by use of test equipment.

(3) Service. To clean, to preserve, to charge, and to add fuel, lubricants, cooling agents, and air. If it is desired that elements, such as painting and lubricating, be defined separately, they may be so listed.

(4) Adjust. To rectify to the extent necessary to bring into proper operating range.

(5) Align. To adjust specified variable elements of an item to bring to optimum performance.

(6) Calibrate. To determine the corrections to be made in the readings of instruments or test equipment used in precise measurements. Consists of the comparison of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared with the certified standard.

(7) Install. To set up for use in an operational environment such as an emplacement, site, or vehicle.

(8) Replace. To replace unserviceable items with serviceable assemblies, subassemblies, or parts.

(9) Repair. To restore an item to serviceable condition. This includes, but is not limited to, inspection, cleaning, preserving, adjusting, replacing, welding, riveting, and strengthening.

(10) Overhaul. To restore an item to a completely serviceable condition as prescribed by maintenance serviceability standards prepared and published for the specific item to be overhauled.

(11) Rebuild. To restore an item to a standard as nearly as possible to original or new condition in appearance, performance, and life expectancy. This is accomplished through complete disassembly of the item, inspection of all parts or components, repair or replacement of worn or unserviceable elements (items) using original manufacturing tolerances and specifications, and subsequent reassembly of the item.

(12) Symbols. The symbol O, F, H, or D placed in the appropriate column indicates the level responsible for performing that particular maintenance function. The symbol "%%" which applies to organizational maintenance indicates that the particular maintenance function may be performed provided it is specifically authorized by the direct support maintenance officer. Use of the symbol will apply only to replacement of major assemblies and time-consuming operations which are within the capabilities of organization but over which control by the commodity commands is considered essential. In no case will the direct support maintenance officer require the accomplishment of a "%%" maintenance function by an organization or unit, and in no case will a "%%" function authorize stockage of parts at organizational level.

d. Column 4, Tools and Equipment. This column will be used to specify, by code, those tools and test equipment required to perform the designated function.

e. Column 5, Remarks. Self-Explanatory.

3. General

a. A maintenance function assigned to a maintenance level which for any reason is beyond its capability, becomes the responsibility of the next higher maintenance level.

b. The authority to perform a maintenance function does not constitute authority to requisition or otherwise secure necessary repair parts as specified in current supply directives.

4. Deviations

a. Normally, there will be no deviations from the assigned maintenance level. In cases of operational necessity, a maintenance function assigned to a maintenance level may, on a one-time basis and at the request of the lower maintenance level, be authorized to the lower maintenance level by the maintenance officer of the level to which the function is assigned.

b. The furnishing of special tools, equipments, and the like, required by the lower maintenance level to perform this function, will be the responsibility of the level to which the function is assigned.

5. Additional Information

a. Changes in the maintenance allocation chart will be based on continuing evaluation and analysis by responsible technical personnel and on Maintenance Request Forms DA 2407 received from field activities.

b. All maintenance prescribed herein will be performed in accordance with applicable publications.

c. In any instance of conflict with current tool and equipment list or current supply manuals, this maintenance allocation chart will be the final authority. Each such instance should be promptly reported by Maintenance Request Form DA 2407.

MAINTENANCE ALLOCATION CHART
FOR
Transporter, Mobilizer, FSN 1740-901-1870 and 1740-902-3132

(AR 310-3)

(1) GROUP NO	(2) FUNCTIONAL GROUP	(3) MAINTENANCE FUNCTION											(4) TOOLS AND EQUIPMENT	(5) REMARKS
		INSPECT	TEST	SERVICE	ADJUST	ALIGN	CALIBRATE	INSTALL	REPLACE	REPAIR	OVERHAUL	REBUILD		
1.0	Transporter Mobilizer Assembly	O	F	O	O	F		F	F	F				
1.1	Axle Assembly	O		O						F				
1.2	Adapter Assembly	O		O				F	F	F				
1.3	Tie Rod Assembly	O				F		F	F					
1.4	Wheels and Tires	O		O				O	O					
1.5	Brakes	O		O	O			F	F					
1.6	Bearings	O		O				F	F					
1.7	Suspension Assembly	O						F	F					
2.0	Hydraulic System	O		O				F	F	F				
2.1	Cylinder Assembly	O		O				F	F	F				
2.2	Tube and Hose Assembly	O	F					O	O	F				
2.3	Pump	O		O				F	F	F				
2.4	Valve	O	F					F	F					
2.5	Towbar Assembly	O		O		F		F	F	F				As reqd

By Order of the Secretary of the Army:

W. C. WESTMORELAND,
General, United States Army,
Chief of Staff.

Official:

VERNE L. BOWERS,
Major General, United States Army,
The Adjutant General.

Distribution:

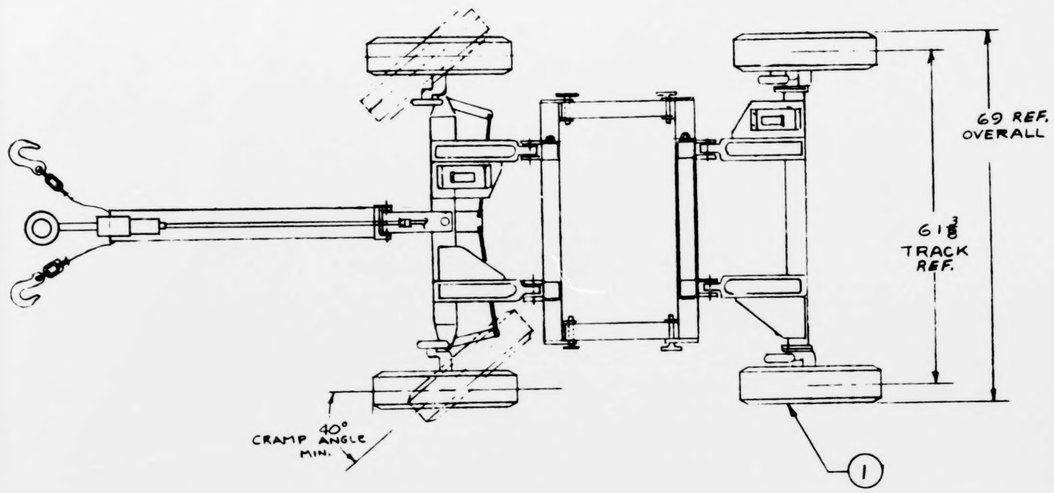
To be distributed in accordance with DA Form 12-31 (qty rqr block no. 95) Direct and General Support Maintenance requirements for All Fixed and Rotor Wing Aircraft.

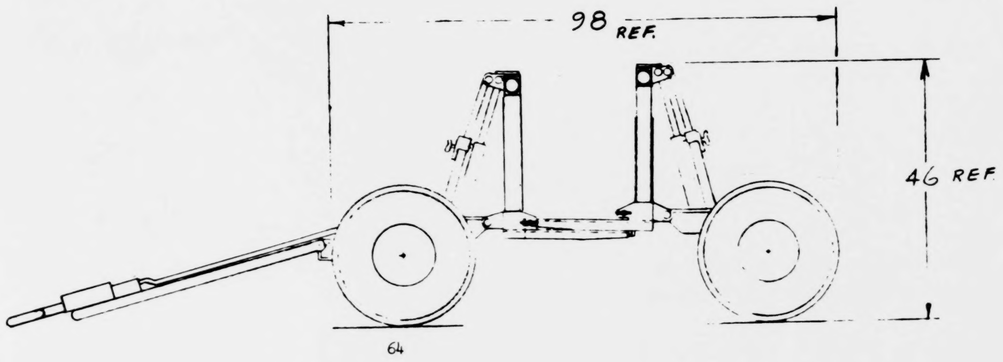
☆ U.S.GOVERNMENT PRINTING OFFICE : 1989 O - 242-451 (1465)

Charts Transposed to

End of Volume.

PIN : 022333-000





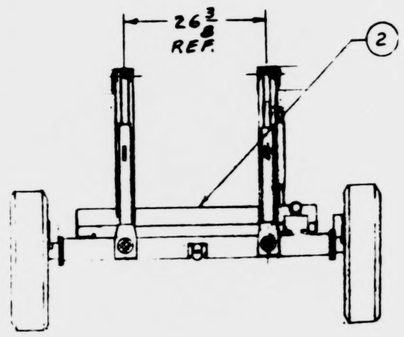
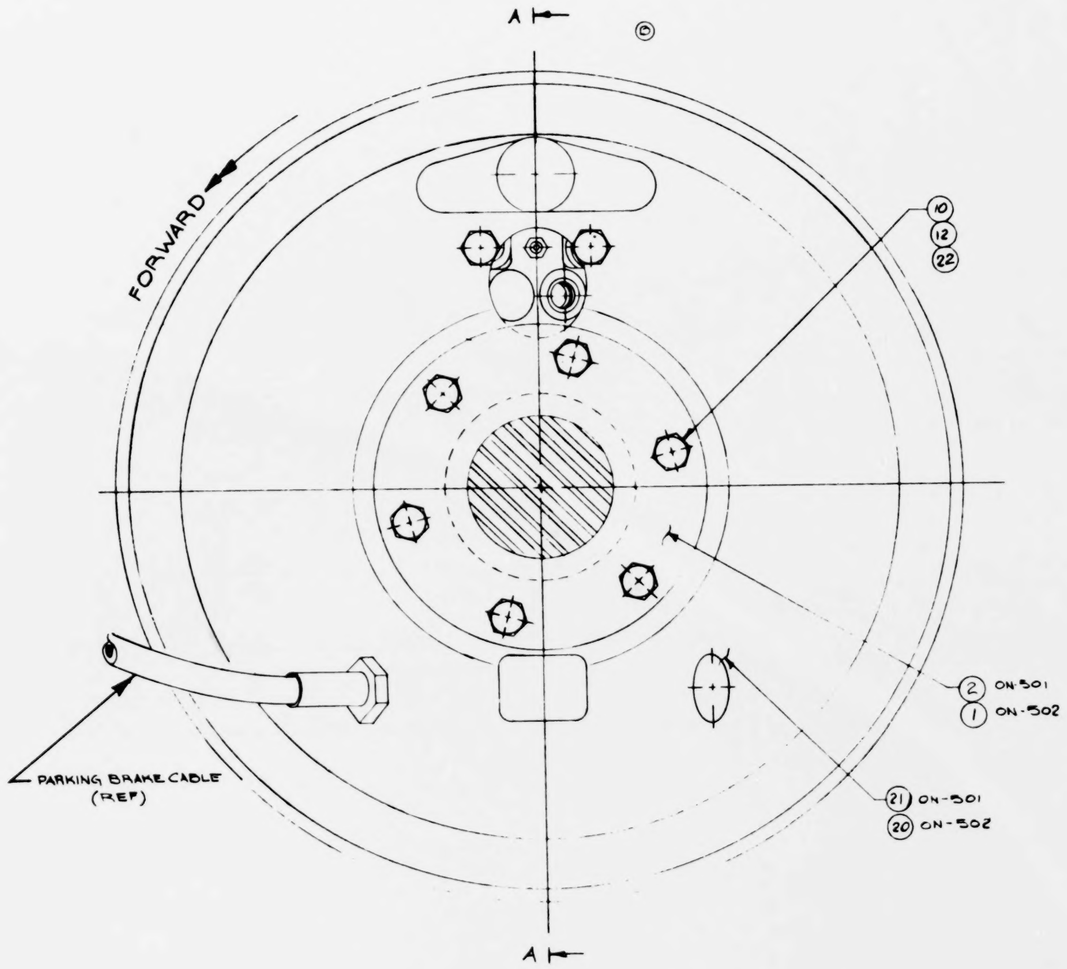
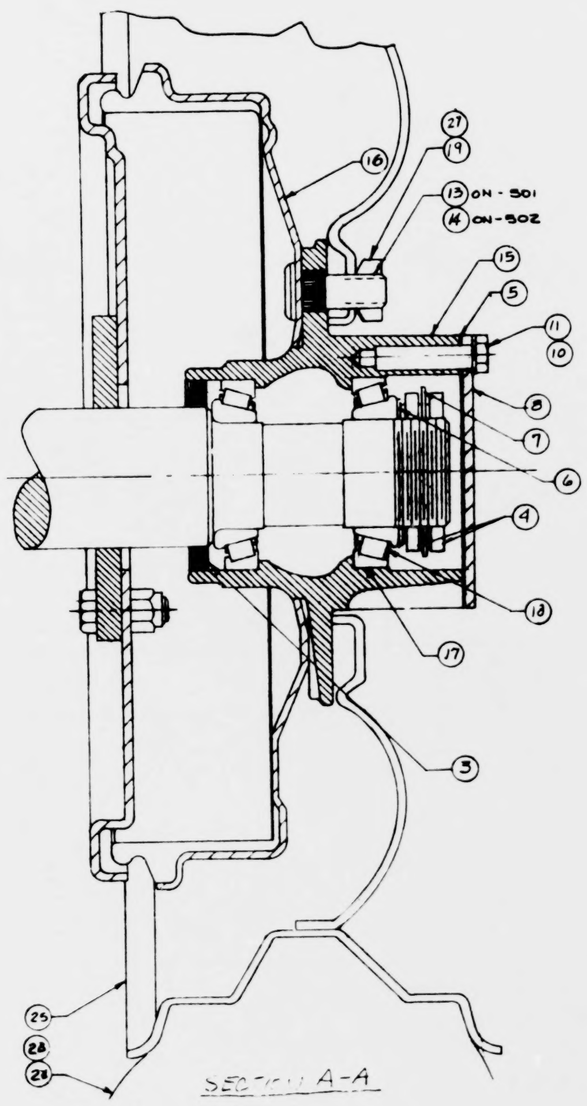


FIGURE 7-1 SHT. 2 OF 2



-501 SHOWN CURBSIDE (R.H.)
-502 OPPOSITE ROADSIDE (L.H.)



SECTION A-A

FIG. E 7-5, SHT. 2 OF 2

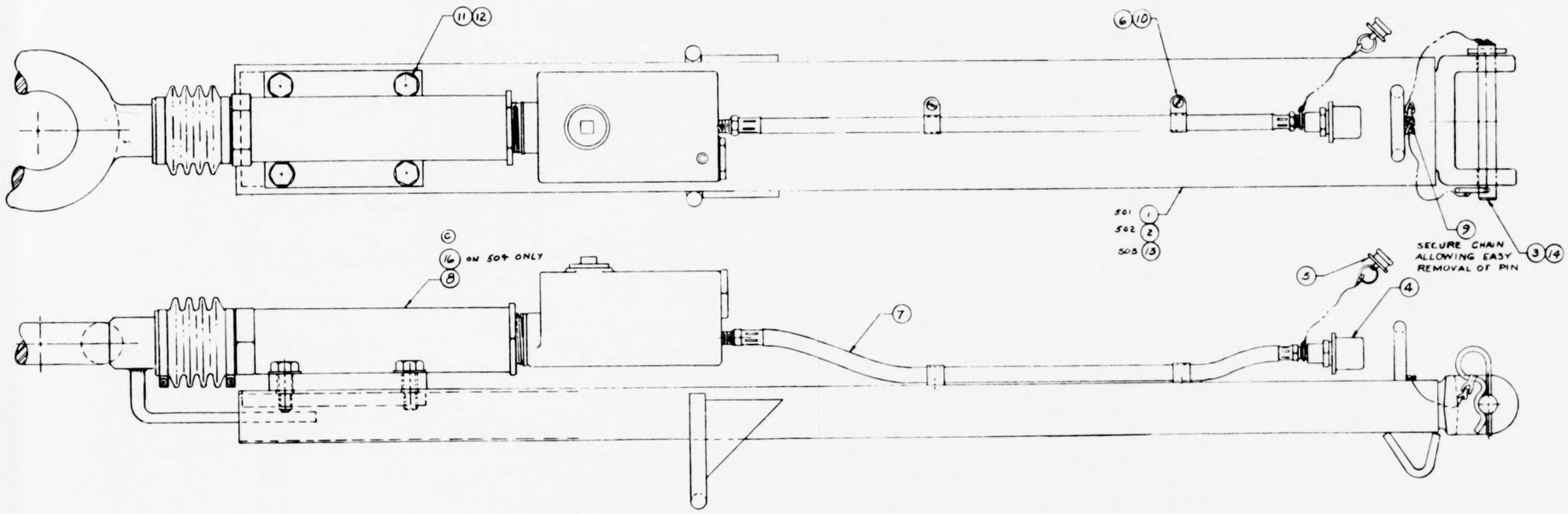
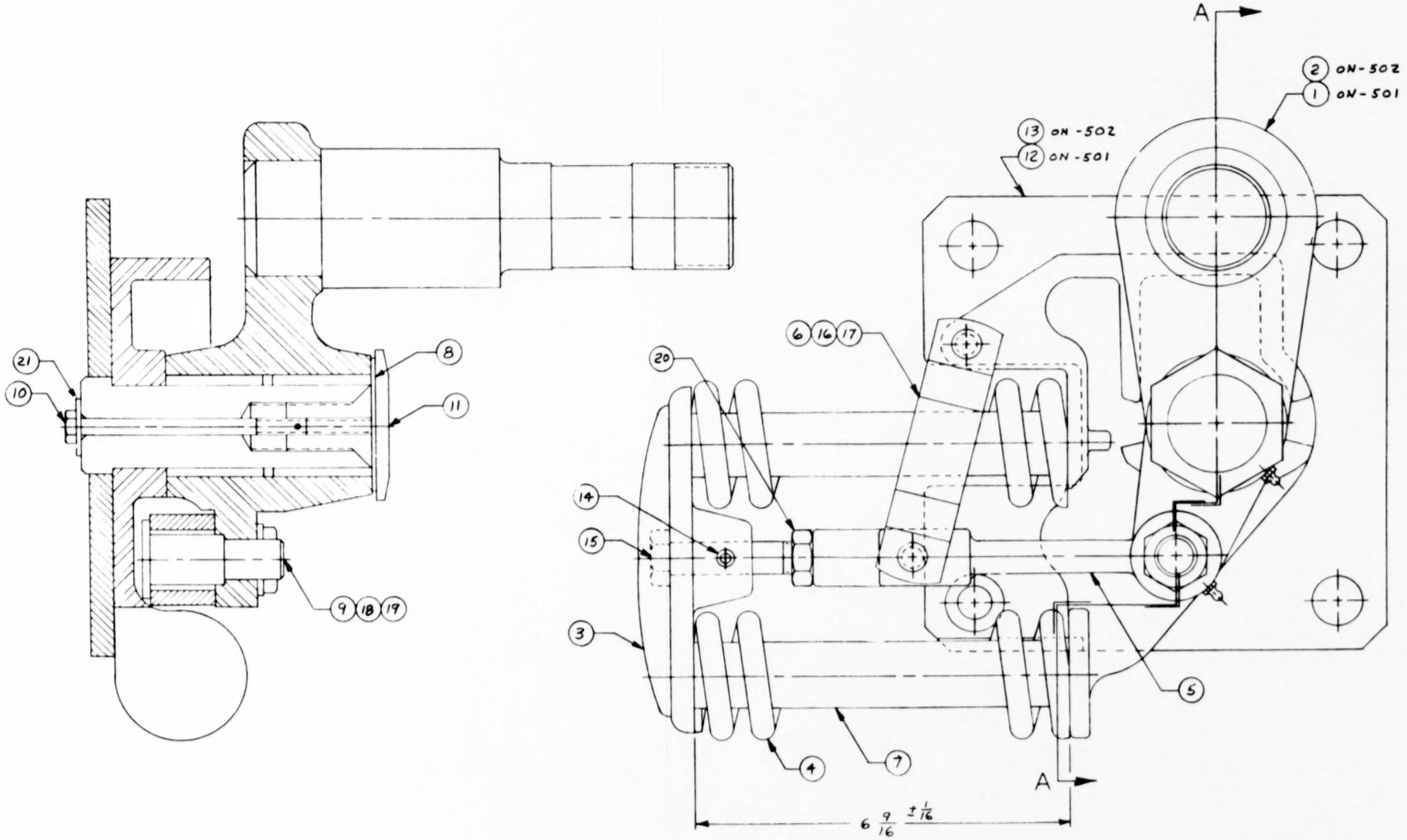
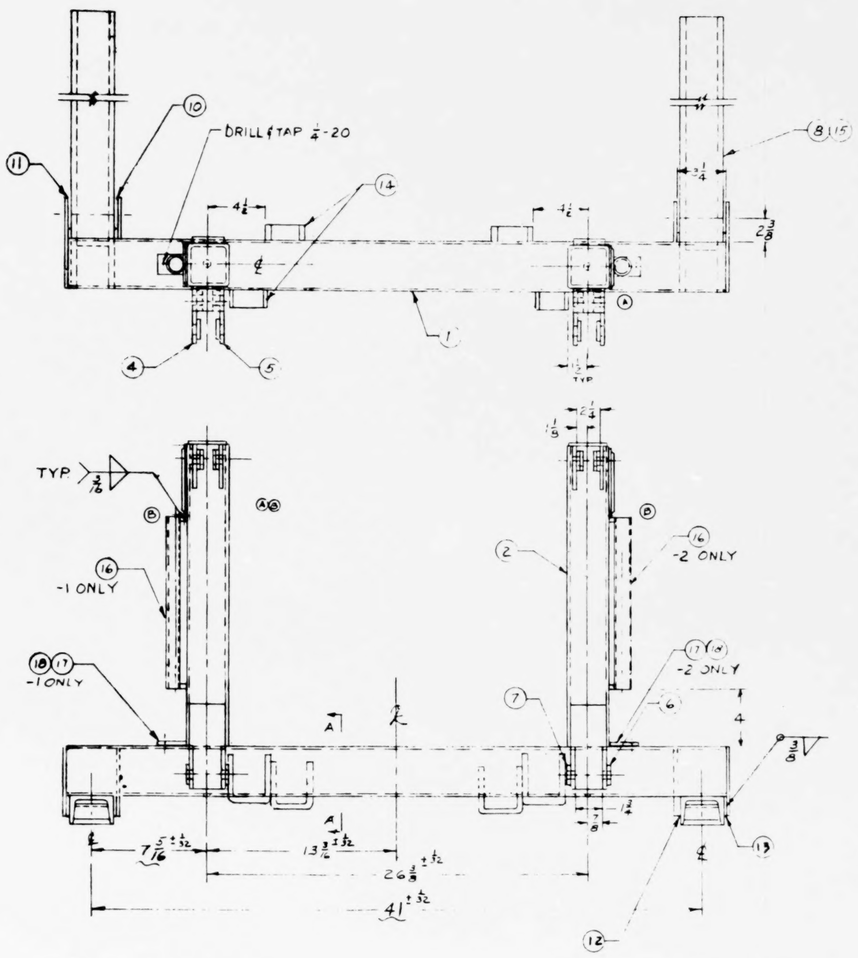


FIGURE 7-8 SHT. 2 OF 2



-501 SHOWN ROADSIDE
-502 OPPOSITE CURBSIDE

FIGURE 7-12 SHT 2



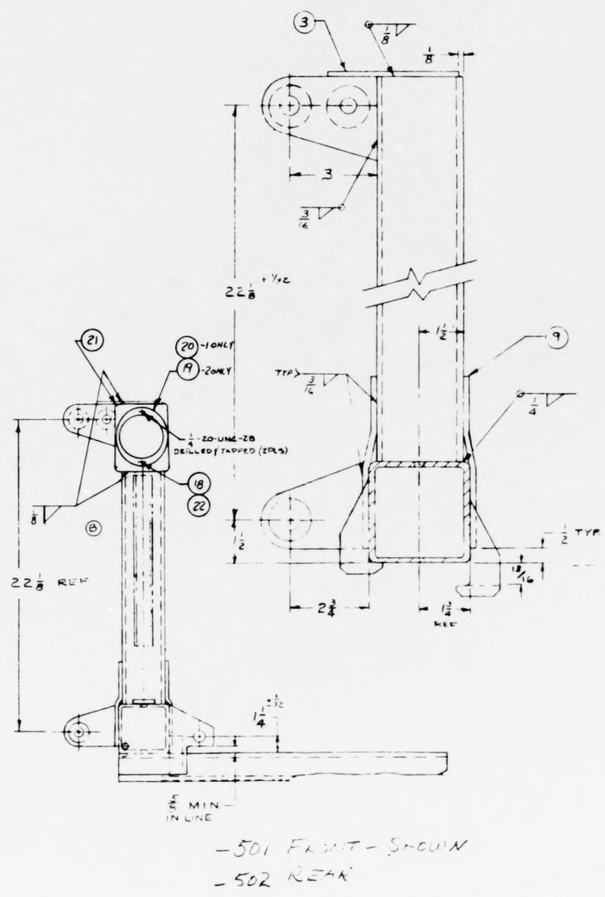


FIGURE 7-13 SHEET 2 OF 2